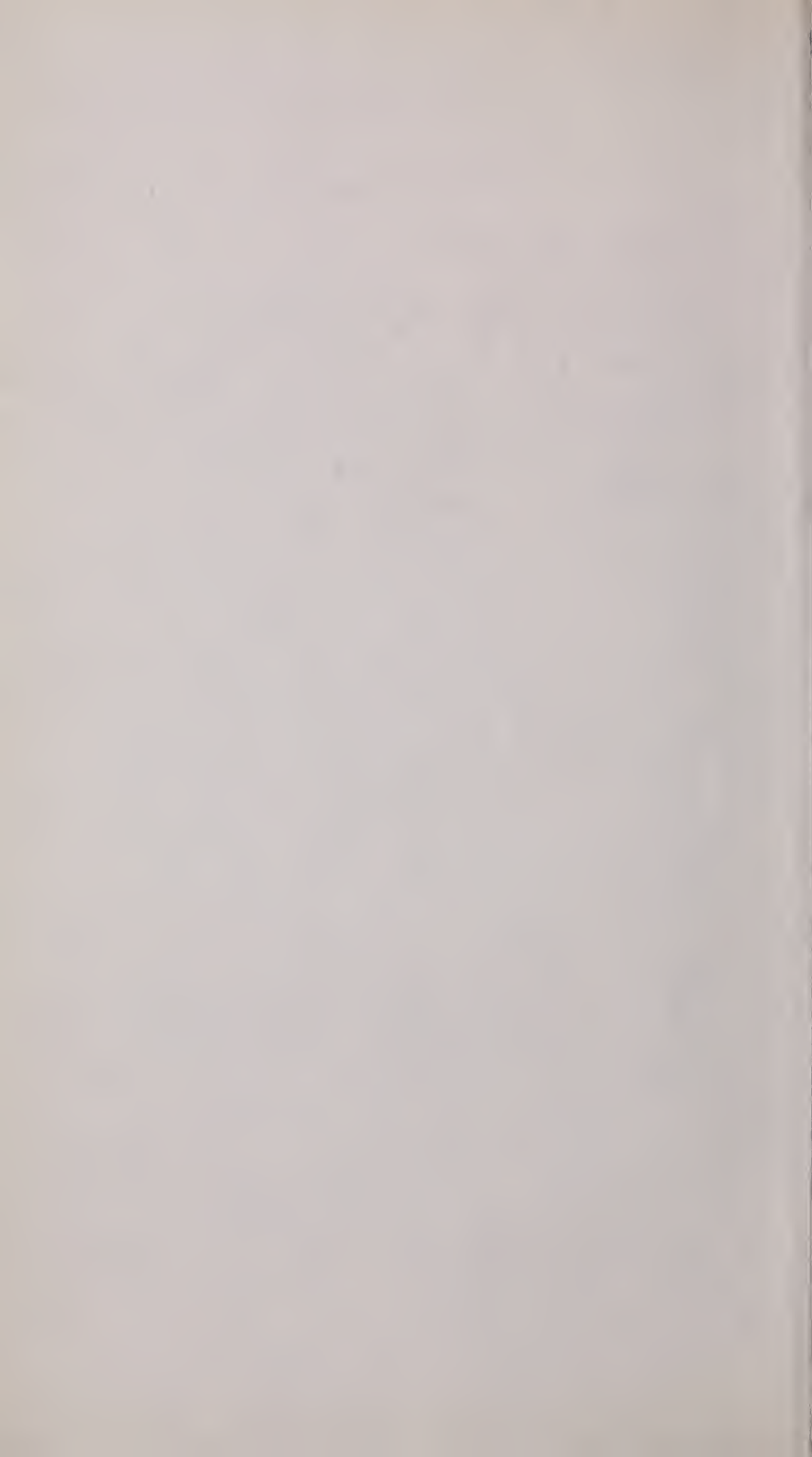


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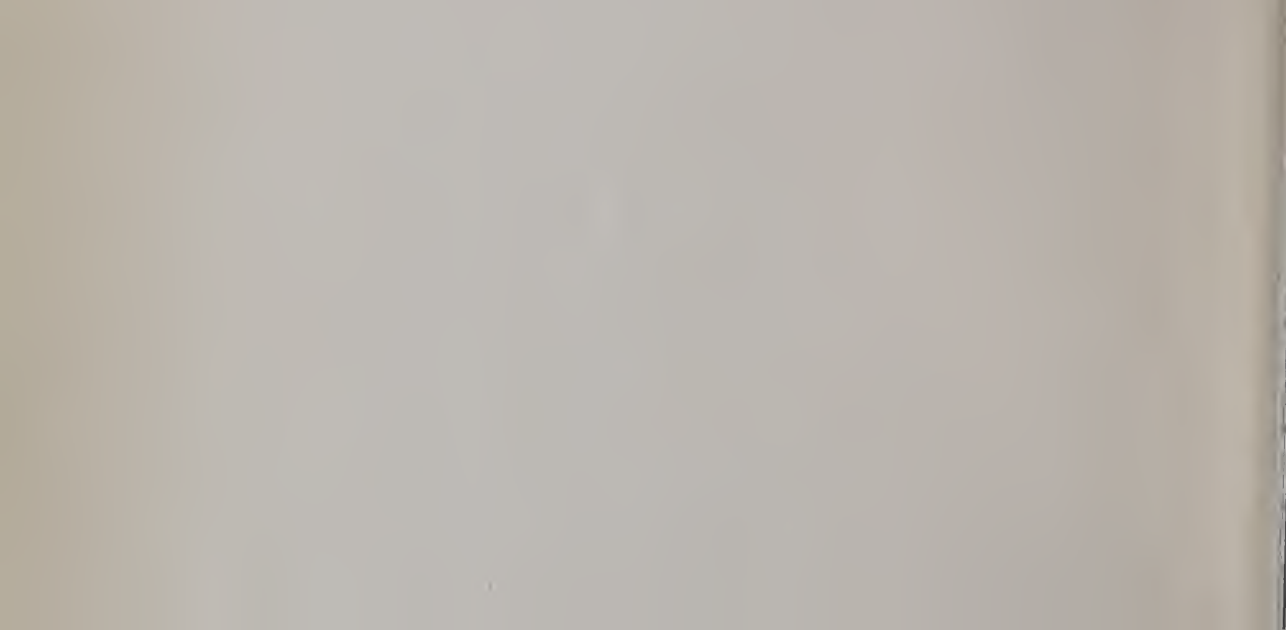
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THE
ADDRESS
OF
JAMES F. C. HYDE,
MAYOR OF NEWTON,
TO
THE CITY COUNCIL.

January 4, 1875.



BOSTON :
PRINTED BY RAND, AVERY, AND COMPANY.
1875.



WITH COMPLIMENTS OF

JAMES F. C. HYDE, MAYOR.

THE
ADDRESS
OF
JAMES F. C. HYDE,
MAYOR OF NEWTON,
TO
THE CITY COUNCIL.

January 4, 1875.



BOSTON:
PRINTED BY RAND, AVERY, AND COMPANY.
1875.

CITY OF NEWTON.

IN BOARD OF MAYOR AND ALDERMEN,
JAN. 4, 1875

Ordered, That his Honor the Mayor be requested to furnish a copy of his Address for publication.

Sent down for concurrence.

JULIUS L. CLARKE, *Clerk.*

IN COMMON COUNCIL, JAN. 4, 1875.

Concurred in.

HOSEA HYDE, *Clerk.*

ADDRESS.

GENTLEMEN OF THE CITY COUNCIL : —

The first year of our existence as a city has now closed. It is numbered with the two hundred and forty-three that preceded it since Newton was founded, and with the one hundred and ninety-four that have elapsed since its incorporation as a town. Its past history has been one full of interest to its citizens, and one too upon which they may justly look with pride and satisfaction. The year that has just closed upon us has not been noted as one of great prosperity: still we have reason to rejoice that no great calamity has befallen us as a community. Neither fire nor pestilence has desolated our city, while general peace and good order have prevailed through all our borders.

Let us be grateful to the Giver of all good, that he has thus so kindly dealt with us, and so spared and protected us through the weeks and months of our first year under a new, and to us untried form of government.

This first year was not an easy one to those who were called upon to fill the various positions of trust to which they were elected. Great pains were taken to arrange ordinances and by-laws adapted to the wants of the young and growing city. All the machinery necessary to carry on the new government was to be created and tested. Many of those elected were wholly new to the duties that they were called upon to perform. It was a year of hard work and constant anxiety to all. The key-note for the new government was true economy in every department, reduction of taxes with no increase of the debt. The people whose servants we were anxiously watched our progress, hardly expecting, but still hoping, we should be able to redeem the promises we had made, and the expectations that had been raised. Let the records show how we performed our part.

Though the past has been in a good degree satisfactory, still with the experience that has been gained is it not fair to presume that the new government will be able to more fully meet the expectations of our fellow-citizens who have elected us to the various positions of trust that we now hold?

As we accept the places assigned us by their kindness, let us all remember the solemn obligations we have this day assumed.

Let me now respectfully invite your attention to the present condition of the important interests connected with the various departments of the govern-

ment, and to such suggestions concerning the same as the occasion demands.

FINANCIAL REVIEW.

In my last annual address, I ventured to express the hope that the outstanding debt of the city — a legacy from its honored predecessor, the town — would not be increased unless for some permanent improvement, or temporarily to meet some extraordinary expense. During the year, the city has necessarily incurred large expenditure for important permanent improvements; while in some of its departments unusual expenses have been unavoidable. Thus, in the very commencement of its history as a city, its appropriations for current expenses have been nearly fifty thousand dollars more than in any preceding year, under its organization as a town. But it is fortunate that, while its financial responsibility has been increased, the expenditures of the city, as rendered and paid for 1874, have not only fallen within the amount appropriated therefor, but even its public debt, and rate of taxation, have been materially reduced. Certainly, the citizens of Newton may be congratulated upon these most favorable results of their first year's experience as a city.

The following exhibit of the finances of the city is sufficiently accurate for all practical purposes. Some unimportant variations may appear in the final adjustment of accounts, but these will not essentially affect the summing-up of results.

The outstanding or permanent debt, amounting at the commencement of the year to \$407,000, has been reduced to \$387,000. Temporary loans have been negotiated from time to time, in anticipation of receipts from taxes and other sources, amounting to \$195,000, all of which has been liquidated. Should the financial policy of the past year be continued, there need be no increase of the public debt on account of any ordinary expenditure which the necessities of the city may require.

The aggregate cash transactions of the treasury department show its receipts to have been nearly or quite \$631,500, and its payments upwards of \$611,000. The total net expenses allowed and paid during the year, exclusive of State, county, and bank taxes, may be stated at \$405,000, subject of course to the slight variations already referred to. But including the State tax, (\$23,540), county tax (\$16,108.32), and the bank tax (1,206.79), the total payments on account of current expenses do not much exceed \$445,000.

In a classification of expenditures by departments, as far as rendered and paid, the following are some of the more important results: educational purposes, \$97,353; highways, \$121,532, including \$13,142 for concrete sidewalks and crossings; fire department, \$27,234, which includes \$2,000 paid for two new strikers for the fire-alarm telegraph; lighting streets, \$17,280, which with contingent expenses makes the whole

amount chargeable to the same appropriation \$20,608 ; police department, \$11,100 ; Steamer House No. 3, \$17,954 ; city stables, \$16,752 ; City Hall, construction account, \$10,500, furnishing, &c., 3,100, making \$13,600. The whole amount appropriated for alterations, furnishing, &c., of the City Hall, was \$16,800, showing an unexpended balance of \$3,200 for the payment of bills yet to be rendered.

The appropriations for the year 1874 amounted to \$376,000, for which full provision was made in the assessment of taxes, and other sources of income. But the net expenses allowed and paid, and which make up the item of \$405,000, include the completion of the Steamer House No. 3, for which an appropriation was made in the previous year, and also other authorized expenses payable from unappropriated moneys in the treasury. Deducting these from the statement, and adjusting the transfer of unexpended balances, as authorized by special order of the city council, and the net result shows a small unexpended balance of the *aggregate* appropriation for the year.

This balance would have been much larger, and the apparent expenses of 1874 would have appeared proportionally less, had not some of the departments been burdened with the transmission of an unexpected excess of unpaid liabilities from the previous year. But, as a portion of the last month's expenses necessarily fall due within the present year, the total payments as rendered for 1874 substantially cover a year's expendi-

ture. With this result, and the reduction of the outstanding debt by draft upon the surplus funds in the treasury, there is good cause for satisfaction.

The following will show the valuation of the property of the city on which taxes were assessed for the year 1874, with amount of taxes and rate of taxation : —

Value of real estate	\$20,032,800.00
Value of personal estate	8,048,645.00
Taxable value of corporate stocks	1,195,294.00
Taxable value of bank stocks	1,157,961.00
<hr/>	
Total taxable valuation	\$30,434,700.00
<hr/>	

City grant	\$320,000.00
State tax	23,540.00
County tax	16,108.32
Overlay	13,245.21
Assessment on corporate stocks	18,539.02
Assessment on bank stocks	17,369.49
<hr/>	
Total assessments	\$408,802.04

Rate of taxation \$13.00 on \$1,000, 1874.

Rate of taxation \$14.50 on \$1,000, 1873.

SCHOOLS.

This city still maintains its high rank in regard to schools. The appropriations have been liberal, and the money in the main judiciously expended.

No complaint comes from any quarter, however large the expenditure for this department, provided the same is economically and wisely used.

There are few or none who do not feel that money laid out in this direction is well invested. The school

committee, with the superintendent, have so managed the past year as to show a small surplus of the appropriation still on hand; and yet all the demands made upon this department have been fully and liberally met.

The parents, as a general rule, enter into all the plans for the promotion of education through the public schools, and heartily co-operate with the committee, superintendent, and teachers to promote the highest and best interests of the scholars.

The following will show the financial condition of this department:—

SCHOOL APPROPRIATIONS FOR 1874.

General appropriation for support of schools	\$77,000 00	
Received from the dog tax	472 77	
“ “ “ school fund	564 96	
Amount received, non-resident pupils in	440 46	
	<hr/>	\$78,478 19
Amount paid to superintendent and teachers, to Dec. 31, 1874	\$67,842 00	
Amount paid to janitors	3,281 50	
“ “ for fuel	5,318 63	
	<hr/>	76,442 13
Balance unexpended Dec. 31, 1874		<hr/> <hr/> \$2,036 06
Appropriation for industrial drawing	\$2,000 00	
Amount expended	\$1,362 40	
Amount transferred to school incidentals	249 29	
	<hr/>	1,611 69
Balance unexpended, Dec. 31, 1874		<hr/> <hr/> \$388 31

Appropriation for evening schools	\$1,000 00
Amount expended, Dec. 31, 1874	\$252 35
Amount transferred to school incidentals	747 65
	<hr/>
	1,000 00
	<hr/>
Appropriation for school incidentals	\$17,000 00
Amount transferred from industrial drawing	249 29
“ “ “ “ evening schools	747 65
	<hr/>
	\$17,996 94
“ expended, Dec. 31, 1874	17,996 94
	<hr/>
Appropriation for conveyance of pupils to the high school	\$1,000 00
Amount expended, Dec. 31, 1874	1,000 00
	<hr/>
Appropriation for text-books	\$300 00
Amount expended, Dec. 31, 1874	299 83
Balance unexpended ,	17
	<hr/>
Net balance unexpended, Dec. 31, 1874	\$2,424 54
Total amount expended for educational purposes for the year ending Dec. 31, 1874	\$97,353 65

The question of additional accommodations at the high school is now forced upon us; and something will need to be done this year in order suitably to accommodate the present scholars, about two hundred and thirty in number, to say nothing of the large increase that will be knocking for admission before the close of the year.

There are more now in the school than can comfortably be provided for; and I suggest that this subject receive such early attention as its importance demands.

Some have indulged the hope that, when the present

high-school building should be found to be too small to meet the wants of the whole city, another high school would be established on the line of railroad running through Wards Five and Six.

There are strong reasons for and against such a plan, while those who are best qualified from experience and observation feel that there should be but *one* high school in each city or town.

If that idea is to be adhered to, then the location of the present building is probably as central and convenient as any that could be found, and it will be wise to make such additions to the building as will fully meet the present and prospective wants of the school.

The alteration contemplated will probably cost not less than twenty thousand dollars; and this will nearly double the capacity of the building.

The subject of truancy is one that has attracted some attention of late. The whole matter, including the appointment of truant officers, is in the hands of the school committee, except to determine the place of confinement of truants. I would recommend the adoption of a suitable ordinance in relation to it.

HIGHWAYS.

The streets of Newton, I believe, were never in so good condition as during the past year, and better results have been obtained for the money expended than ever before. This is largely due to more efficient management, and to the better system that has been adopted.

The work has been laid out under the direction of an engineer, and carried on by the superintendent of streets and his assistants, under the general direction of the committee on streets.

More crushed stone has been used during the past season than ever before, and several streets have been well covered with this material. I expressed the hope last year that such a course might be adopted, and I would strongly reiterate the same at this time.

There are miles of street that need to be properly macadamized, and we have plenty of good material for this work that only needs to be broken to be made available for such use. In accordance with a suggestion that I made last year, a superintendent of streets was chosen, who has had the general management of all the streets, sidewalks, culverts, bridges, and other things connected with the same.

The plan pursued has given general satisfaction, and should be continued with such improvements as experience may suggest.

So far as possible, all unsafe and dangerous places should be improved, and thus reduce the possibility of accident, and the liability of the city for damages.

Much has been done, and wisely too, in laying concrete sidewalks and street-crossings. This work is rather costly; but such walks and crossings are a great improvement, and I think we should expend a reasonable amount each year upon them.

During the past year, a portion of the work on roads

previously ordered to be built, or widened and improved, by the county commissioners has been done ; but much remains to be accomplished.

The " Valentine Road " has been so far completed as to be accepted by the city council. The original estimate of the county commissioners for the completion of this road was about \$2,000. The actual cost has been about \$26,000.

That portion of Walnut Street south of the railroad remains to be widened ; and when the whole is completed, with the addition ordered at the Highlands, this street will be one of the longest and best in the city, extending as it will from Dedham Street at the Highlands, to Crafts Street near Waltham line.

The widening of Waltham Street, to which reference was made last year, should receive attention this year, as well as the road laid out by the commissioners, leading from Winchester Street in Ward Five, to Charles River, to meet a road laid out by the county commissioners of Norfolk. The work on the latter, except the building of the bridge, could be done to advantage this winter, and thus give employment to many laborers at a moderate price per day, who might otherwise be compelled to remain idle, and possibly need assistance from the city.

The same course might, and I think should be adopted, in the extension of Walnut Street at the Highlands, and in the widening of Beacon Street in Ward Six ; the latter an improvement also ordered by the

county commissioners. It is possible that other work could be done during the winter, in connection with the improvement of highways, or preparation of material for the same, and so afford work for the unemployed, of which I fear there will be many this winter.

Fuller Street in Ward Four has been partially completed; but the work should go on until it is finished the entire length to the width of fifty feet, which will be a costly improvement, and one hardly warranted by the small amount of travel it accommodates.

The committee on streets, in view of the large amount of work already ordered, have not deemed it best to lay out new streets that might prove expensive to the city; and in this I think they have acted wisely.

While there should be no obstacles thrown in the way of improvement by our citizens, by the refusal of the city to do its part, yet it cannot be expected that the city can lay out and build, or even accept after they are laid out by individuals, every street or way that is asked for.

Wise discrimination should be made between such streets as are demanded by public convenience and necessity, and those that are merely marked out by some speculator in land, the better to enable him to sell the same.

While I have no hostility to any, I do believe the expense of streets laid out only to benefit a few interested parties, and that are not called for by the public,

should be built at the expense of those who are directly benefited.

I would express the hope that the committee on streets will insist upon having all new streets of good width. None should be laid out less than forty, and others should be fifty or even sixty feet in width. Posterity will thank us for our wise forecast ; for now, while land is comparatively cheap, it will be no hardship to give it for this purpose, while if left for twenty-five, fifty, or a hundred years, it will be a very costly undertaking to widen streets. We have only to look to Boston for verification of this remark.

When new streets are built, the work should be well done. It is not economy to save a few dollars in making a road that will soon need extensive and costly repairs.

Road-making is an art, and is not well understood even by some who profess a knowledge of road-building. The mere laying-out and shaping of a road is but a small part of the whole work. The proper drainage of a road is a matter that is almost wholly overlooked by many ; yet it is very important, and on some soils it is impossible to have a perfect road without suitable drainage. I commend the manner in which the streets, the gutters, the sidewalks, and the culverts have been managed the past year, and hope that they may receive equally good attention during this year.

The betterment law has been applied but in few cases, and in those cases not to the injury of any person.

Its provisions are productive of good when wisely administered.

FIRE DEPARTMENT.

During the past season the city has not suffered serious loss by fire, notwithstanding the short supply of water. Our fire department has been greatly improved, and is now in excellent condition.

The number of engineers has been reduced from ten to seven, including the chief, and the change seems to have been a good one. The pay of the chief engineer was increased from two hundred and fifty to seven hundred dollars.

The three steamers are so located as to be able to reach any part of the city in a short time, and have during the past year rendered excellent service. There will be a few extra expenses in connection with the department this year. A new house in Ward Two for the use of the hook and ladder and hose company, or an enlargement of the present one on Washington Place, will be required; new hose to replace that which is no longer fully serviceable; and some additions to the fire-alarm telegraph, among which will be a new striker at Lower Falls, and some additional boxes,—which improvements are suggested by the chief engineer in his yearly report. Hand engines, except at Lower and Upper Falls, are not now relied upon for protection against fire. Should water be introduced into Newton, there will be no need of more steamers at present, and a large expense will thus be saved.

The hose companies in Wards Two and Four, and the hook and ladder company in Ward Two, are valuable additions to the fire department.

The horses used in connection with the fire department are also used on the highways; and the plan as now arranged appears to give general satisfaction. This arrangement seems to be an economical one; though, if care is not exercised, it might be far otherwise.

None are more ready to do their whole duty, and to do it promptly, than the firemen; and I recommend that all proper wants in this department be promptly supplied.

The fire-alarm telegraph has proved its value in giving early notice of fires; and in some cases valuable property has been saved that otherwise would have been destroyed. No great additions have been made to it the past season. A small amount may need to be laid out this year for its improvement and preservation.

The ordinance concerning the erection of improper and dangerous buildings should be enforced so as to prevent the locating of such buildings where they will endanger other property.

POLICE.

I have given special attention to this department, and feel sure it has been improved during the year. There has been an increase of the force, and there will need to be a further addition.

Our limits are extensive; and the present number, however efficient they may be, are entirely inadequate to meet the present wants of the city by day and by night. The past season, it has been more quiet within our limits than during previous years, which may be accounted for in the fact that we have had a better police force, which has had the effect to prevent crime. Newton is still regarded as a quiet and orderly place; and, that we may preserve our reputation, the police force should receive some additions. I still feel that the force should be composed of prudent, intelligent, and temperate men, who will be prompt in the discharge of every duty.

WATER.

In accordance with the suggestions that I had the honor to submit in my address of last year, a committee was chosen to consider the subject of a supply of water. That committee reported that it was expedient to have water introduced, and at as early a day as was practicable; and further recommended that the matter be referred to the people, that they might express their minds upon the question at the election recently held. The people by their votes said Yes, by more than five hundred majority.

I regard it as fully settled that Newton must have water, and that soon. While almost every city, and many towns, some of which are not one-tenth as rich as Newton, have introduced water, it is not wise for us longer to delay the matter.

But, aside from that fact, the more important one is, that during the past year there has actually been a scarcity of water, even the wells in many localities failing to yield the usual supply. In some of the more thickly settled wards, there is no question but that the people are constantly drinking and using water that is entirely unfit for domestic purposes.

Recent analyses made of water taken from different places in the neighboring town of Watertown show that that taken from Charles River above the dam, which is below all the mills that are located on this river except those in Watertown, was really the purest, while that taken from seven different wells located in the same town was found to be, with two exceptions, "quite unfit for domestic use;" and the water from the two other wells contained more than double the impurities of the river water.

If the water in wells in Watertown is so impure, is it not reasonable to suppose that in Wards One, Two, and Three, and in some portions of other parts of the city, the same state of things may exist?

In addition to these facts is the important one that most of our dwellings, as well as a large number of other buildings, are of wood; and, without a supply of water, serious consequences might result from fire.

We feel that this is a very important subject, the most so of any we have ever been called to decide.

If we were compactly situated, as many towns are, then we should need but comparatively few miles of

pipe, and the cost would be small ; but with over a hundred miles of streets, and the villages widely apart, it must involve a very large outlay, even to lay the pipes through one-half of the streets with all the necessary appliances. The estimated cost of water from Charles River, taking the same from some point above the Upper Falls, by the Sawyer plan, for forty-three miles of pipe, is \$600,000 ; and it is reasonable to suppose that it will not be done for less than that sum.

It is probable that more pipe will need to be laid, and consequently a larger sum of money will be needed.

There are some who believe that a plan can be adopted that will better meet the wants of the city, and possibly at less expense.

It being apparent that there was a difference of opinion on this subject, it was deemed best to have a committee, or board of commissioners, appointed outside of the city council, to fully investigate and report the best plan for a water supply. This commission has been appointed, and will soon enter upon an investigation of the whole matter.

I am, however, satisfied that we must chiefly if not wholly depend upon Charles River for our supply of water, either taking it directly and independently, or by joining with Boston, or taking it from the Brookline Water Works if it can be thus obtained.

It may be found advisable to utilize the water of Hammond's Pond, Cold Spring Brook, and Bullough's

Pond in connection with the Charles River supply, as we can do under a charter granted us last winter. It does not, however, become me to enter into the details of this question. The whole subject is in good hands, and in due time we shall have such a report as will enable us to fully decide upon the merits of the various plans that have been from time to time suggested.

It seems probable that, before this year shall have passed, the work necessary for supplying the city with water will be well under way, if not nearly completed.

After the water has been brought in, and has performed its work, there must be some way to get it out again with all the impurities it has gathered.

It may not be necessary to immediately enter upon an extensive system of sewerage, though it must be apparent to all who fully consider the subject that Ward One, at least, will soon need some provision of this kind.

This work, though only to meet the wants of this ward, will need to be so constructed as to form an important part of a comprehensive system for the whole city, of which the main sewer through Ward One will be the only outlet. This drainage must be where nature has provided for it, — down Charles River, or in the valley alongside of it, in a close brick sewer, until it reaches a point near the Arsenal Bridge, where the tide ebbs and flows sufficiently to scour out the channel, and carry to the sea all that may empty into it.

The system of sewerage thus begun could be gradu-

ally extended as the wants of the city required until in time it would meet the wants of every part.

If a large outlay is made for the introduction of water, it will be necessary to issue bonds to meet the expenses of the same, so that the taxes may not be largely increased. The debt of Newton being so small, and the wealth so great in proportion to the population, we ought to be able to borrow at as low a rate as any city in the Commonwealth. Such bonds should run for not less than twenty years, if at six per cent, but a less time if it should be deemed best to issue them at seven per centum.

For the payment or redemption of this debt, a sinking fund should be created. Our ordinances provide that "there shall be annually appropriated, and raised by taxation, on account of loans made for ten years, a sum equal to six per centum thereof; on account of loans made for twenty years, a sum equal to three per centum thereof; and, on account of loans made for thirty years, a sum equal to one and one-half per centum thereof."

If this ordinance should be continued, a certain amount will be raised by taxation each year to add to the sinking fund, and the taxes will be increased in consequence.

It is generally believed that the water-rates will not for three or four years pay the annual interest on the water debt; and, if not, then an additional amount will need to be raised by taxation.

I trust that this whole subject will receive that careful consideration at your hands which its importance demands.

POOR DEPARTMENT.

This department has been the past year under the general direction of six overseers of the poor chosen by the city council. The selections made were fortunate ones, and the whole business has been economically and judiciously managed. I would repeat the suggestion made last year, that great care be exercised in the selection of these officers. Let us have those that are kind and merciful but still just, and, so far as possible, men of experience in this department.

We are fortunate in having but few poor in our almshouse; and they have for many years, to my personal knowledge, been kindly cared for both in sickness and in health by the excellent and faithful warden and his wife.

The report of the overseers of the poor says: "The average number of poor at the almshouse for the past year has been seventeen, while six persons have been fully supported by the city at the different State lunatic hospitals." A large number out of the almshouse have been assisted at considerable expense. On the whole, we have reason to be thankful that there are no more who are obliged to be supported or assisted directly by the city. The number in our almshouse, Dec. 31, was only twelve, quite a small number considering the population of Newton.

STREET LAMPS.

There are now five hundred and eighty-five street lamps supplied with gas by the Newton and Watertown Gas Light Company, and two hundred and fifty-five lamps supplied with naphtha by the New England Gas Light Company.

A large sum is yearly paid for street lights; and we have a right to expect good results from so large an expenditure, the whole expense of which during the year was \$17,280.

There has been a manifest improvement during the year, but there is room for still greater; and I would recommend to those who will have charge of this department that they give the subject such personal attention as will insure the very best results.

CITY HALL.

Last year I expressed the hope that the government would not incur any great outlay for a City Hall, but so alter and improve the Town Hall as to fit it for all the wants of the city.

I am happy to say that that plan was adopted, and that we have secured a very commodious, well-arranged, and convenient building at a very small cost.

The City Hall, with the land connected with the same, is worth between thirty and forty thousand dollars, while the cost to the city of the alteration and the furnishing was less than half the largest sum named.

It is reasonable to suppose that the present structure will answer all our wants for several years, while the whole outlay will not much exceed the annual interest on what a City Hall would have cost if an entirely new one had been erected.

I believe the course pursued in relation to this building was one of true economy, and is so regarded by all our citizens.

MILITARY.

The "Claffin Guards," the only military company we have in our city, has received aid from the city council during the past year, and is, I am pleased to know, in a very flourishing condition. We have reason to take pride in this organization, composed as it is of some of the best young men of our city. Such men were needed, and did splendid service, during the late Rebellion, and may be relied upon at all times to do their whole duty. I would again commend this company to your favorable consideration.

NEWTON FREE LIBRARY.

The importance of this institution to Newton cannot be sufficiently estimated. Through the great liberality of a few of our citizens, and the additional contributions of many, this Free Library was commenced in 1866. From that time to this, more than \$60,000 has been contributed by two hundred and eighty-six persons, mostly residents of Ward One, to make this library worthy of Newton. The Newton Centre Li-

brary Association generously donated their library to this, the same making a large and welcome addition. The number of volumes now in the library is 10,088.

To understand how our citizens appreciate the advantages offered by this institution, we have only to know that during the past year 47,642 volumes were issued ; being a larger number than have ever been called for in a single year before. This library is open to all classes, and none are turned away who wish to enjoy its advantages.

In view of the fact that the town had aided one similar association, and that both towns and cities may render aid to libraries, it was thought best by the managers of the Newton Library to ask aid from the city to the extent of \$5,000 ; one-half to be paid last year, and one-half this year.

This petition came in late in the year, after all the appropriations were made. The committee to whom it was referred were unanimously of the opinion that such aid should be rendered ; and voted to grant \$2,500 if the unexpended balances of the year would permit, and, if not, that the matter be referred to the next city council with the recommendation that the same be granted this year. At the close of the financial year, it was found that the balance of appropriations remaining in the treasury was not sufficient to pay this sum.

I earnestly join in the recommendation made, and hope the money may be paid over at an early day.

I believe the policy established by the town, of aiding libraries, is worthy of continuance; and I will venture the hope that at no distant day this library will pass into the hands of the city, and become *the* city library, and the only one to be aided by the city; and when under such control, if branches are needed, owing to our peculiar geographical condition, they can be established so as to accommodate all the inhabitants.

We should be thankful that so much has been done to establish a Free Library through private means; and we should be ready to render it such material aid as it so richly deserves.

CHANGE OF WARDS

Section 3 of our charter provides that "the city council may in the year 1875, and in every fifth year thereafter, make a new division of wards, so that they shall contain, as nearly as may be consistent with well-defined limits to each ward, an equal number of voters in each ward, according to the census to be taken in the month of May or June in said years."

There are some who feel that we should have an increased number in both branches of the city council, and believe it might be well to have our charter so amended as to provide for the election of three aldermen at large, making nine with the present number; also that it provide for three councilmen from each ward, instead of two as at present. Our charter could be so amended as to allow an increase in the number

of wards, and then a new districting of the city could be made this year if desirable, and the same put into seven or eight wards, which would have the effect to increase the board of aldermen one for each new ward, and the common council two for each new ward. Let this subject receive due consideration at your hands.

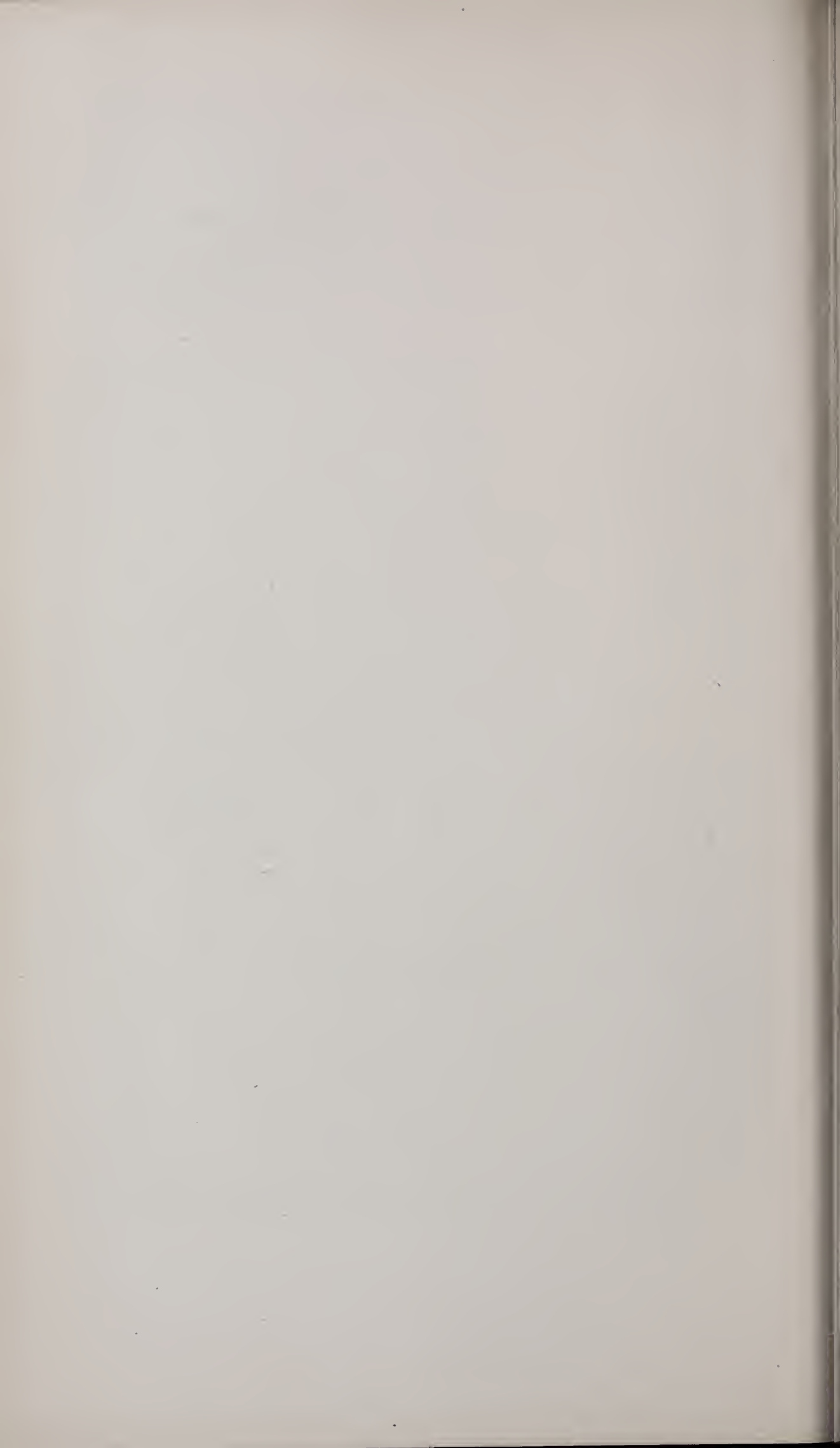
GENTLEMEN OF THE CITY COUNCIL:—

I have now briefly called your attention to matters of municipal interest with which we have had to do in the past, and which may demand our attention during the year that is now just opening before us.

Many questions of importance will arise that will require patient investigation and careful consideration. Let us be determined to honestly and conscientiously discharge every duty that devolves upon us, our only aim being to promote the public welfare.

The signs of the times most fully demand that we shall continue to exercise the most careful economy in all our expenditures, — a true economy that will not lead to waste or extravagance, and its inevitable results, heavy debt or taxation, but will give us the dollar's worth for every dollar expended, and enable us to keep our debt small, and our rate of taxation reasonable. With such management, we shall be even more prosperous in the future than we have been in the past, and many more of such as we shall be glad to welcome will come among us to find pleasant homes on our beautiful hillsides, and along our peaceful valleys.

Let us, then, earnestly resolve to perform the duties devolving upon us to the best of our ability, and in such a manner as shall meet the approval of our constituents, of our own consciences, and of the good God from whom we have received all the blessings we now enjoy.



ANNUAL REPORT
OF THE
SCHOOL COMMITTEE
OF THE
CITY OF NEWTON.

1875.

NO. XXXVI.



BOSTON:
FRANKLIN PRESS: RAND, AVERY, & Co.
1876.



ORGANIZATION OF THE SCHOOL COMMITTEE, 1875.

HON. J. F. C. HYDE, MAYOR, CHAIRMAN. *Ex-Officio.*

HON. GEO. E. ALLEN, PRES. COMMON COUNCIL, *Ex-Officio.*

BRADFORD K. PEIRCE, CHAIRMAN.

H. M. WILLARD, SECRETARY.

DISTRICT COMMITTEES.

District.

1	JAMES S. NEWELL,	Newton Centre,	Term expires 1877.
"	ALDEN SPEARE,	" "	" " "
"	JAMES F. C. HYDE,	Newton Highlands,	" " 1875.
"	WALTER ALLEN,	" "	" " 1877.
"	JOHN A. GOULD,	Newton Upper Falls,	" " "
2	ISAAC HAGAR,	Newton Lower Falls,	" " 1875.
"	J. E. LATIMER,	Auburndale,	" " "
3	GEORGE E. ALLEN,	West Newton,	" " "
"	ELIJAH W. WOOD,	" "	" " "
" *	JULIUS L. CLARKE,	" "	" " "
"	HENRY C. HAYDEN,	Newtonville,	" " 1876.
"	WINFIELD S. SLOCUM,	"	" " "
4	BRADFORD K. PEIRCE,	Newton,	" " "
"	HENRY C. HARDON,	"	" " "

STANDING COMMITTEES OF THE BOARD.

HIGH SCHOOL. — J. F. C. Hyde, B. K. Peirce, George E. Allen, J. E. Latimer, H. C. Hayden.

EVENING SCHOOL. — H. C. Hardon, Julius L. Clarke, W. S. Slocum.

MUSIC. — J. E. Latimer, H. C. Hayden, Julius L. Clarke.

DRAWING. — H. C. Hardon, James S. Newell, Alden Speare.

INDUSTRIAL DRAWING. — J. A. Gould, Isaac Hagar, E. W. Wood.

TEXT-BOOKS. — B. K. Peirce, J. E. Latimer, Walter Allen.

RULES AND REGULATIONS. — W. S. Slocum, Alden Speare, Walter Allen.

SCHOOLHOUSES. — Isaac Hagar, J. A. Gould, J. S. Newell.

ACCOUNTS. — Isaac Hagar, George E. Allen, Elijah W. Wood.

* Elected in convention to fill vacancy.

ORGANIZATION OF THE SCHOOL COMMITTEE, 1876.

HON. ALDEN SPEARE, MAYOR. CHAIRMAN, *Ex-Officio*.
 HON. GEO. E. ALLEN, PRES. COMMON COUNCIL, *Ex-Officio*.
 BRADFORD K. PEIRCE, CHAIRMAN.
 H. M. WILLARD, SECRETARY.

DISTRICT COMMITTEES.

NEWTON CENTRE DISTRICT.

JAMES S. NEWELL,	Newton Centre,	Term expires 1877.
*ERASTUS BLAKESLEE,	" "	" " 1876.
WALTER ALLEN,	Newton Highlands,	" " 1877.
JOHN A. GOULD,	Newton Upper Falls,	" " "
GEO. W. SHINN,	Newton,	" " "

UPPER FALLS DISTRICT.

JOHN A. GOULD,		
WALTER ALLEN,		
JAMES S. NEWELL,		
ERASTUS BLAKESLEE,		
ISAAC HAGAR,	Newton Lower Falls,	Term expires 1878.

AUBURNDALE AND LOWER FALLS DISTRICT.

ISAAC HAGAR,		
J. E. LATIMER,	Auburndale,	Term expires 1878.
ELIJAH W. WOOD,	West Newton,	" " "

WEST NEWTON DISTRICT.

ELIJAH W. WOOD,		
JULIUS L. CLARKE,	West Newton,	Term expires 1878.
GEO. E. ALLEN, <i>ex-officio</i> ,	" "	" " 1876.
WINFIELD S. SLOCUM,	Newtonville,	" " "
J. E. LATIMER,		

NEWTONVILLE DISTRICT.

H. C. HAYDEN,	Newtonville,	Term expires 1876.
W. S. SLOCUM,		
L. R. STONE,	Newton,	" " 1878.
B. K. PEIRCE,	"	" " 1876.
JULIUS L. CLARKE.		

NEWTON DISTRICT.

B. K. PEIRCE,	GEORGE W. SHINN,	H. C. HAYDEN.
H. C. HARDON,	L. R. STONE,	

STANDING COMMITTEES OF THE BOARD.

HIGH SCHOOL. — B. K. Peirce, H. C. Hayden, George E. Allen, J. E. Latimer, Walter Allen, George W. Shinn, Mayor, *ex-officio*.

EVENING SCHOOLS. — H. C. Hardon, Julius L. Clarke, W. S. Slocum.

MUSIC. — J. E. Latimer, L. R. Stone, H. C. Hayden.

DRAWING. — H. C. Hardon, E. W. Wood, W. S. Slocum.

INDUSTRIAL DRAWING. — Erastus Blakeslee, Isaac Hagar, J. S. Newell.

TEXT-BOOKS. — B. K. Peirce, J. E. Latimer, Walter Allen.

RULES AND REGULATIONS. — Walter Allen, Erastus Blakeslee, Geo. W. Shinn.

SALARIES. — E. W. Wood, Geo. E. Allen, J. S. Newell.

SCHOOLHOUSES. — Isaac Hagar, J. A. Gould, L. R. Stone.

ACCOUNTS. — Isaac Hagar, George E. Allen, Julius L. Clarke.

* Elected in convention to fill vacancy.

CITY OF NEWTON.

IN BOARD OF SCHOOL COMMITTEE,

Oct. 27, 1875.

THE following named gentlemen were appointed to prepare the Annual Report of the School Committee for the year 1875 ; viz., Messrs. Peirce, Newell, Hardon, Hayden, Walter Allen, and Slocum.

Attest :

H. M. WILLARD,

Secretary.

IN BOARD OF SCHOOL COMMITTEE,

Dec. 14, 1875.

Voted, That the Superintendent of Schools be added to the above Committee.

Attest :

H. M. WILLARD,

Secretary.

IN MEETING OF COMMITTEE ON THE ANNUAL REPORT,

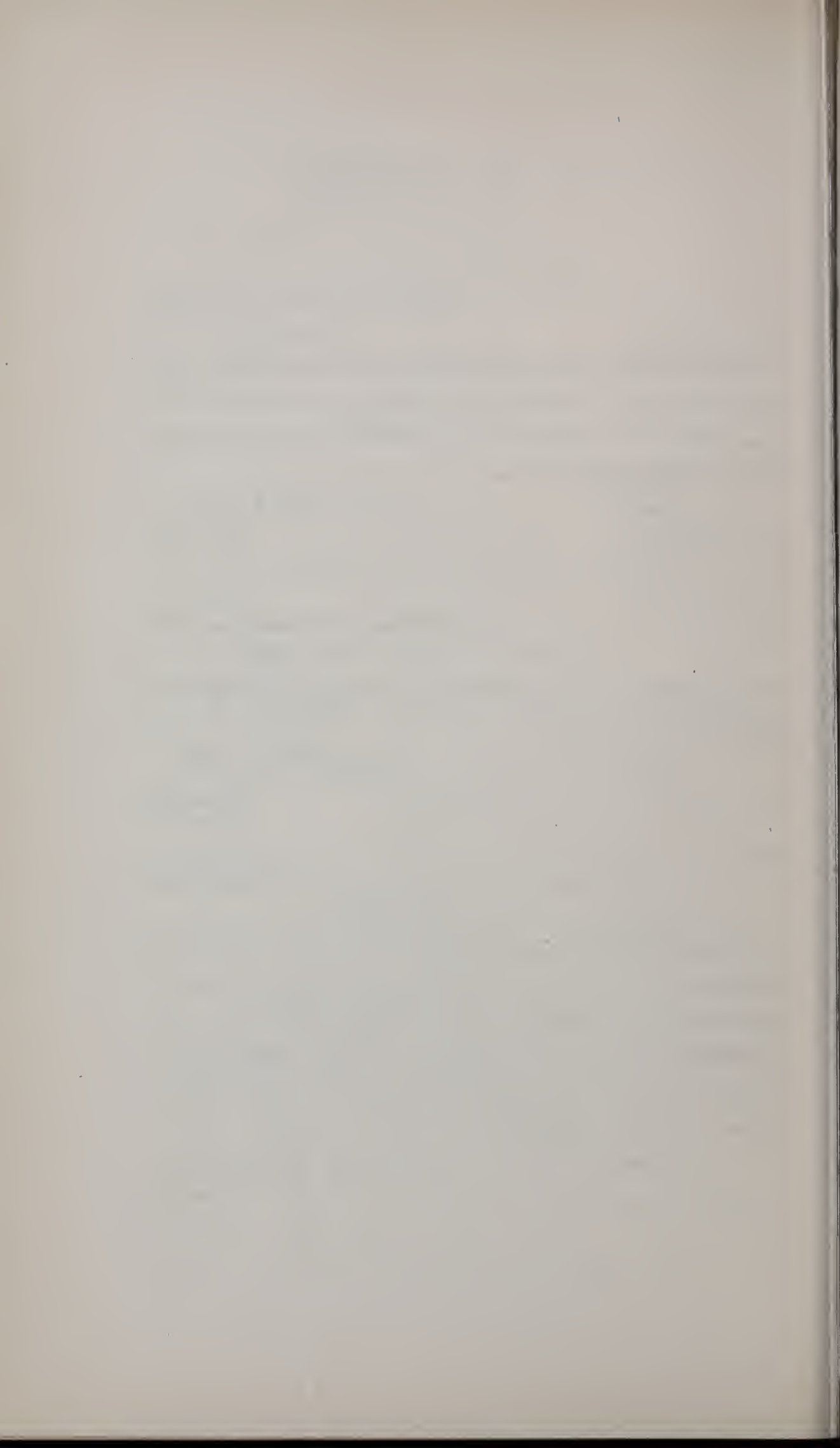
Dec. 14, 1875.

Voted, That the reports of the sub-committee on the different schools, made to the General Board, and accepted by the same, constitute, with the general report of the Chairman of the Board, together with the reports of the Committees on Music and Drawing, and of the Superintendent, the Annual Report.

Attest :

H. M. WILLARD,

Secretary.



REPORT OF SCHOOL COMMITTEE.

TO THE CITIZENS OF THE CITY OF NEWTON:—

THE report of the Superintendent of Schools will give all the accustomed statistics, the history of the year's work and progress, criticisms suggested by careful, personal, and constant visitation of the different districts, and such recommendations as seem to him to be demanded by their present condition. During his late tour in Europe, he has been enabled to examine some of the educational institutions, especially of England and Germany, and brings back with him observations and impressions worthy of preservation, and such as may be of practical value to us. These will appear in his report to the Board. Of this valued officer it is our pleasure to bear testimony to his diligence and efficiency in securing unity and a high order of instruction throughout the schools of the city, in giving suggestions to the masters and teachers; and, as far as his other duties permitted (which have been multiplied in their details far too much, for lack of other provision for their discharge), he has given normal lessons in the instruction of classes. In this field, and in conference with the teachers, his time is of the greatest value to the city; and arrangements

should be made to relieve him entirely of simply clerical labor.

The reports from the District Committees and from special committees upon music and drawing give very full, and on the whole very satisfactory, evidences of real progress, and of a very healthful and vigorous condition of the schools. There are comparisons often made between the character of the instruction and the progress of pupils in schools of the present day, and the public schools a quarter of a century ago, not always to the credit of the modern institutions. No sane man will dare to affirm that we have not now a better trained class of teachers. Certainly the whole subject of education is better understood, both as to its modes and its objects, than formerly. The textbooks are clearer and more philosophical. More public attention is now given to the schools. They are better supervised, and kept up to a higher tone. But this is also true of them: Public sentiment does not now admit of as rigid discipline as formerly. The expressed opinions of the community continually stay the hand of the teacher, in pressing forward the pupil, for sanitary reasons. We have in the last twenty years shortened, by one-sixth, the period of daily instruction, lengthened the recesses, and greatly increased the extent of vacations. We are continually warned of the danger to body and mind of crowding the pupils. Physicians and parents protest against much study at home out of school hours. Children are oftener retained from school for slight indisposition than formerly. Competition, secured by rewards and public commendation, is

done away. With all this, would it be a wonder if our young people failed to advance in the schools as rapidly as under the more rugged and urgent discipline of a previous day? Besides, the outside demands upon the time, and vital and intellectual powers, of our young people, have been increased to a great extent. They go into society earlier, and cultivate its exciting opportunities more constantly. They take exacting lessons in music, and attend lectures, which draw heavily upon their mental and physical powers. If it had not been for the remarkable progress which has been made in modes of instruction, and for the better order of teachers which we have secured, with all these drawbacks, our public schools especially would show a very serious demoralization.

It is not to be questioned that we now crowd the short day we have with too many studies. For the body of the children, who will not remain in the schools but a few years, a better arrangement of study might and ought to be made. It may not be wise to submit all pupils to the same curriculum of study and discipline. There are many problems in the economy of public instruction not yet solved. But, on the whole, excellent work is done in our schools. In many branches our children secure a proficiency never attained in former years; and, what is better, the institution itself is a living thing. It is not in a condition of decay. There is vigor enough in it to shed its old bark, and make new fibre when required.

It was a significant fact, that, in the competitive exercises which broke out like an epidemic all over

the land in spelling, — that venerable and most respected, and supposed to be most neglected, of all rudimental studies, — in comparison with those who were children twenty years ago, and with private institutions, the lads and girls of our public schools bore away a fair proportion of the honors. In general information and culture, our pupils to-day will be found to be far in advance of their predecessors of the “olden time.” We think, upon a candid survey of the whole field and a somewhat careful examination of the condition of our schools, we may say without qualification to our citizens, that they are in a hopeful and improving condition.

The report of the committee upon the High School, last year, was devoted chiefly to the existing and prospective necessities for larger accommodations. During the summer vacation, delaying the opening of the school in the fall but a month, the City Committee upon Public Property, without exhausting the liberal appropriation of the Council, provided ample, very convenient, and well-appointed additions to the High School edifice. Without needless architectural display or unnecessary expense, but with excellent taste, the new building has been erected in harmony with the old, and now presents a very attractive feature of the pleasant Ward of the city, of which it is its chief ornament. The new recitation-rooms are large, well ventilated, and provided with blackboards; the chemical and philosophical rooms are thoroughly appointed for the practical illustration of the sciences taught in these departments. A very convenient room has been set apart for the use of the school committee, and as the

office of the Superintendent of Schools. It is neatly furnished with plain and convenient desks, and cases for books. A fine assortment of maps, globes, and photographic illustrations, at a small cost comparatively, was obtained in Europe by the Superintendent during his late visit. There seems to be little lacking now to afford the pupils of our highest city school ample facilities, and the most favorable circumstances, for the prosecution of their studies, but a considerable addition to the Library, and such illustrations in art as the generous citizens of Newton may be pleased to hang upon its walls. In the many fine private libraries of our city are valuable volumes for reference and consultation, which the owners, if the thought be but suggested to their minds, will, without doubt, be happy to place upon the now empty shelves of the High School. In this way, without calling upon the city treasury, or seriously taxing individual citizens, a large and useful library may be secured.

One great end of the enlargement was to enable the school to broaden its scope of instruction, and especially to bestow a wider and more thorough culture upon the pupils that complete their school life when they leave its halls. Nothing further seemed to be required in the instance of those preparing for college. Although in our first collegiate institutions, during the last ten years, the requirements for entering the Freshman Class have been almost annually raised, the young men from Newton High School have won the highest credit for its thoroughness in the conspicuous excellence which they have shown upon their preparatory examina-

tions. As, however, only a limited number in each class expect to enter college, and enjoy its protracted training, it becomes specially important to give the most careful attention to those who graduate from all academic tuition when they close their connection with the school. To this end, the thoughtful consideration of the Principal of the school, of the Superintendent, and of the committee, has been given; and we think it may be said, without any fear of a well-founded contradiction, that there is no single institution of learning of its class, that affords a better arranged, or a broader curriculum of instruction, either for candidates for college, for young ladies and lads that limit their school life with its classes, or for youths intending to enter upon a business life, than the Newton High School. We know of no public school in the State that has so admirably arranged a commercial course. The marked difference between the preparation we are now enabled to give our lads proposing a mercantile life, and that secured in the business colleges, so called, is to be seen in its philosophical adaptation to the developing powers of the mind, in its scope and breadth, and in its thoroughness as tested by constant written examinations. It is necessary to develop the intellect and the moral powers of the youth, as well as to discipline his hand to a fair and free style of penmanship, and to instruct him in the rudimental laws of commercial arithmetic and book-keeping. As our merchants form one of the largest elements in our social life, become our ruling citizens, and give direction to public affairs, it is important that they should have a general knowledge of history and civil government, and be familiar with

the first principles of political economy and of the Constitution of the country. No one in our days can feel at ease in society without some considerable familiarity with English literature; and, as our commercial transactions are almost as intimate with France and Germany as with the different portions of our own land, a young man can hardly hope to reach the highest opportunities of a business life without a sufficient training in their tongues to enable him, after a little practice, to communicate by letter or lip with the traders and bankers upon the other shore of the Atlantic, which is fast becoming simply an inland sea. In connection with what may be called the general and classical courses, with a limited three-years' course for such as cannot possibly remain longer, we have now a fully developed four-years' business course, from which, so far as intellectual and practical training is concerned, we may graduate accomplished young clerks, ready to enter a counting-room or a store, prepared for all the usual requisitions of commercial and mercantile life. It will be a loss to any lad to abridge this course unless health or insurmountable difficulties prevent its completion. No intelligent mind, glancing over the studies arranged for the different years of this course, can fail to see the pertinence and practical value of each branch, and the admirable and well-rounded intellectual training which the whole term will give.

As might be expected, the course is popular in the school. A number, larger than that of any of the other courses, of the pupils have entered upon it. A course of conversational lectures upon commercial,

mercantile, financial, political, and moral subjects, chiefly by our own citizens, and without expense, of a half-hour's duration, every other week during the winter, has been arranged. Many of the friends of education in the country are looking with much interest to the result of this somewhat new feature in public-school training.

The interesting closing exercises of the school last summer, which crowded the City Hall with spectators, and held them for many hours on one of the sultriest days of the season, gave good evidence of the intellectual development and maturity of the graduating class. Members of the committee previously attended the recitations of the various classes, and became familiar both with the modes of the instructors and the proficiency of the scholars. The written examinations, however, continued through the year, offer the most absolute tests of actual scholarship. No examiners could fail to notice the efficient and honest work accomplished in the various branches studied, or to be impressed with the good discipline of the school, secured without violence. Our young people, while submitting to the positive requisitions of the institution, are so well convinced of their justness, that its halls become scenes of pleasure as well as profit to them, and are gratefully remembered and revisited after they leave them.

The changes that have been made in the faculty of instruction have been few, and have added but slightly to the expense of the school. The two special teachers in German and French have been given up, because their places could be fully and profitably

supplied by the regular teachers of the school. Mr. Kent, an accomplished graduate of Harvard, and formerly a pupil of the High School, has been added to the corps of instructors. Miss Worcester, who succeeded to the position vacated by Miss Fox, has enjoyed rare opportunities during a residence abroad for cultivation in the French and German tongues, and has by permission of the Board spent the last six months in Berlin. She enters upon her duties with the opening of the new year. During her absence the chair of modern languages has been enriched by the instructions of Mr. Atwood, a very polished German teacher, who has for years devoted himself to the study of this language while himself a teacher of English in some of the leading families in Berlin.

There are many points that are still weak in our High-School work, and to them attention is now earnestly turned. Writing, reading especially, physiology, a knowledge of the house we live in, and how to keep it in good order, and history, are rudimental and important subjects. They are liable to be overlooked in the pressure and multiplicity of other things more ornamental but not more useful. The faithful and observing Principal is the first to notice any deficiencies of this character, and is taking efficient steps to give proper attention to these important branches. On the whole, we have much occasion for congratulation, and little for criticism, in the present condition of the Newton High School.

To afford an idea of the thoroughness of the work performed at the school, we append a specimen of

the test-questions which have been given to the various classes during the past term.

For the Committee,

B. K. PEIRCE, *Chairman*.

FIRST CLASS.

LATIN (Cicero).

I.

Give a brief account of the conspiracy of Catiline.

II.

Translate : —

- A. *Meministine . . . profugerunt*. — In Catilinam, I., III.
- B. *Uno mehercule . . . fateatur*. — *Id.*, II., IV.
- C. *Ille erat . . . ferre poterat*. — *Id.*, III., VII.

A.

- 1. *Futurus esset*. — Why subjunctive?
- 2. *In ante diem V. Kalendas*. — What is the uncorrupted form?
- 3. *Sui conservandi*. — Number and reference of *sui*.

B.

- 1. Mood of *conceperit*? And why?
- 2. Composition of *parricida*, *veneficus*, *mehercule*.
- 3. Compare *familiarissime*, and give the principal parts of *fateatur*.

C.

- 1. Synopsis of *audebat* throughout the indicative.
- 2. Rule for the case of *consilio*.
- 3. Inflect the imperative active of *delectos*.
- 4. Inflect *aliquid* in the singular.

MORAL PHILOSOPHY.

I.

What reasons have we for believing that the human will is free ?

II.

State and answer the objections to the freedom of the will.

III.

State and illustrate the distinction between absolute and relative right.

IV.

What is conscience ? Illustrate its functions.

V.

Under what circumstances is society justified in limiting the right of the individual to liberty and life ?

VI.

Give a summary of the section on veracity.

MENTAL PHILOSOPHY.

I.

What are the grounds for thinking that the essence of mind and the essence of matter are not the same ?

II.

State and illustrate the distinction between sensation and perception.

III.

Do we see an object to be solid, or infer it to be so ? Prove by reference to the stereoscope the correctness of your view.

IV.

Explain how the knowledge given by one sense may be gained by another.

V.

Explain the process by which a general notion is obtained from an individual one.

VI.

State and illustrate the most important laws of association.

VII.

Show that the belief in memory is original, and not founded on experience.

VIII.

In what ways may the memory be improved?

IX.

State and illustrate the distinction between attention and reflection.

X.

Mention the ways in which the power of attention may be improved.

ENGLISH LANGUAGE (Shakspeare's Julius Cæsar).

I.

The story of the play.

II.

The characters of Brutus, Cassius, and Portia.
(Give your own ideas, not what you have heard or read.)

III.

Act I., Scene 2. — Explain the following passage : —
 “If it be aught toward the general good,
 Set honor in one eye, and death i' th' other,
 And I will look on both indifferently :
 For, let the gods so speed me, as I love
 The name of honor more than I fear death.”

IV.

Act II., Scenes 1, 2, and 3. — Explain the bracketed words and expressions in the following :—

1. For if thou [path, thy native semblance on].
2. Like wrath in death and [envy] afterwards.
3. It may be these [apparent] prodigies.
4. Caius Ligarius [doth bear Cæsar hard].
5. The abuse of greatness is when it disjoins [remorse] from power.
6. Enjoy the [honey-heavy] dew of slumber.
7. [Swear] priests and cowards and men [cautelous].
8. She dreamed [to-night] she saw my statua.
9. The gods do this [in] shame of cowardice.
10. Cæsar [should] be a beast without a heart.

V.

1. Give from the play instances of double negative, of double superlative, and of the use of one part of speech for another.
2. "Brutus, thou sleep'st." — Why *thou*?
3. "If thou beest not immortal, look about you." — Why the charge from *thou* to *you*?

SECOND CLASS.

LATIN (Virgil).

I.

Write a short biography of Virgil. What are his principal works? What is an epic poem? Define hexameter verse.

II.

Translate *Æneid*, I., 560–578.

III.

Write out 570 and 571, marking the quantities over every vowel in the verse.

Account for the following quantities: *i* in *his* and *pariter*, first and second *e* in *considerere*, 572; first and second *i* in *mihi*, third *i* in *discrimine*, 574; *e* in *adforet*, *o* in *litora*, 576.

IV.

1. Rule for the case of *vultum*, 561.
2. Principal parts of *solvite*, 562.
3. Composition of *cogunt*, and principal parts of the simple verb, 563.
4. Rule for the mood of *nesciat*, 565.
5. Kind of a verb *gestamus*, 567.
6. Explain lines 567 and 568.
7. Derivation of *Hesperiam* and *Saturnia*, 569.

V.

1. Give the principal parts of *vultis*, and inflect the tense, 572.
2. Account for the case of *urbem*, 573.
3. Composition of *discrimine*, 574.
4. Why is *agetur* singular number?
5. Account for the mood of *adforet*, 576.
6. Composition of *equidem*.
7. Situation of *Libya*, 577.

PHYSIOLOGY.

I.

State the composition of the bones.

II.

Describe fully the lacteal system of absorption of chyle.

III.

State the composition and function of the bile.

IV.

Mention the substances composing the liquid portion of the blood.

V.

What and where are the capillaries? Changes in the blood while passing through them.

VI.

By what means is the cavity of the chest enlarged during inspiration?

VII.

Name the three parts of the process of nutrition.

VIII.

Define nerve, ganglion, cerebrum, solar plexus, reflex action.

IX.

Mention the coats and humors of the eyeball.

X.

What means should be taken to secure healthy respiration?

FRENCH (Magill's Reader).

I.

1. §166. Translate from *A Genappe to la grande armée* inclusive.
2. Where is Quatre-Bras? Who was Blucher?
3. Give the principal parts of *fuir* and *pris*.
4. Why is the *past indefinite* used in this extract, instead of the *present perfect*?
5. Inflect *s'élancèrent*.
6. Show by spelling how *hélas* should be pronounced.

II.

Translate the following sentences into French: —

1. As soon as he had finished relating his troubles, he asked assistance of them.
2. He has forbidden me to speak to my brother.
3. I cannot think of it without shuddering.
4. Too many masters serve only to perplex the mind.

PHYSICAL GEOGRAPHY.

I.

Describe the arrangement of the land masses on the globe.

II.

What has the indentation of the coast line of Europe to do with its civilization?

III.

State the distinction between a plateau and a plain.

IV.

What is the position, structure, and altitude of the Rocky Mountains?

V.

What is the origin of valleys in plains? Describe their formation.

VI.

What is the general form of continents, and what makes them take that form?

VII.

Mention the eight general laws of continental relief.

ENGLISH LANGUAGE (Pope's Rape of the Lock).

I.

Give an abstract of the poem.

II.

- a. What is meant by the machinery of a poem?
- b. What machinery is employed in the poem under consideration?

III.

"Here thou, great [Anna], whom [three realms] obey,
Dost sometimes counsel take — and sometimes tea."

- a. Explain the enclosed words.
- b. What figure of rhetoric in the last line?

IV.

"At [ombre] singly to decide their doom."
"First Ariel perched upon a [matadore]."

Derivation and meaning of the enclosed words.

V.

"Fear the just gods, and think of Scylla's fate!"
"She dearly pays for Nisus' injured hair."

What is the story to which allusion is made?

VI.

Explain enclosed parts in the following: —

- a. "Steel could [the labor of the gods] destroy,
And strike to dust the imperial towers of Troy."

- b. "Nor half so fixed [the Trojan could remain,
While Anna begged and Dido raged in vain]."
- c. "So, when bold Homer makes the gods engage,
And heavenly breasts with human passions rage:
'Gainst [Pallas, Mars; Latona, Hermes] armes."
- d. "Not fierce [Othello] in so loud a strain
[Roared for the handkerchief] that caused his pain."

VII.

Sylphs, gnomes, nymphs, and salamanders: distinguish.

THIRD CLASS.

ENGLISH LANGUAGE (Tennyson's Elaine).

I.

Write a short biographical notice of the author of Elaine.
Mention three of his other poems.

II.

Explain the enclosed words and expressions in the following:

1. And there they lay till all their bones were bleached,
And [lichened into color with the crags].
2. The [tale] of diamonds for his destined boon.
3. [He is all fault who has no fault at all.]
4. Charge at the head of all his [Table Round].
5. Till [rathe] she rose.
6. Robed in red [samite].
7. [And faith unfaithful kept him falsely true.]
8. Bid call the [ghostly] man.
9. No surer than our [falcon] yesterday,
[Who] lost the [hern] we slipped him at.
10. But Lancelot, [when they glanced at Guinevere,
Suddenly speaking of the wordless man].

III.

1. Derivation and meaning of the following words: —
(a) Pagan, (b) Concourse, (c) Rival, (d) Skeleton, (e) Oriel.
2. Why does the *poem* begin with what took place after the time at which the *story* begins?

(Swinton's Word Book.)

I.

Define (a) Primitive, (b) Derivative, (c) Prefix, (d) Suffix, (e) Analysis.

II.

Analyze and define the following: —

(a) Bedew, (b) Ashore, (c) Renew, (d) Uncrown, (e) Displease.

III.

Analyze and define the following: —

(a) Drunkard, (b) Bakery, (c) Boyish, (d) Lambkin, (e) Banishment.

IV.

1. Give *two* derivatives of *blame*, with their opposites.
2. Give *two* synonymes of *blame*, with the distinction in the meaning.

V.

From what is *king* derived? Give four derivatives of *king*, with their meanings.

LATIN (Cæsar B. G.).

Translate: —

- A. *Interim quotidie . . . adesse dicere.* — I., XVI.
 B. *Tum demum . . . præstare debeant.* — I., XVII.

A.

1. Why is *esset* subjunctive?
2. Rule for the case of *Æduos* and *frumentum*.
3. What is the subject of *flagitare*? Give the rule.
4. Give all the participles of *posita est*.
5. Rule for the case of *frumento*.
6. Modern name of the *Arar*.
7. Principal parts of *subvexerat*.
8. Inflect the present indicative of *nolebat*.
9. Imperative second person singular of *ducere* and *dicere*.
10. Subject of *adesse*.
11. Inflect *conferri* in the present indicative passive.

B.

1. Give the active infinitives of *proponit*.
2. Compare *plurimum*.
3. Rule for the mood of *valeat* and *possint*.
4. Synopsis of *tacuerat* in the subjunctive.

FRENCH (Magill's Grammar and Reader).

I.

Translate into English, and answer the questions:—

1. Je voudrais, de tout mon cœur, vous obliger dans cette affaire.
2. Il se défit de la fausse opinion qu'il avait conçue de leur mérite.
3. Que ces superbes descriptions plussent en tout temps.
4. Accroissons, tous les jours, notre réputation par de nouveaux actes de courage.
5. Vous écririez mieux, si vous étiez plus attentif.
6. Give the principal parts of *voudrais*.
7. Why is *conçue* feminine?
8. Give the principal parts of *plussent*.
9. Principal parts of *accroissons*.
10. Why not *du* instead of *de* courage?

II.

Translate into French the following sentences:—

1. France is a beautiful country.
2. Have you seen the master of the house?
3. He goes to the city on Thursdays.
4. The Cotton States will be very poor after this war.
5. My neighbor is a worthy man, and his son is a brave man.

NATURAL PHILOSOPHY.

I.

Describe the process of making a thermometer.

II.

Explain the principle involved in the sucker.

III.

State and illustrate the law of the wheel and axle.

IV.

Explain by means of a figure the lifting pump.

V.

Find the specific gravity of a piece of ivory that weighs 16 ounces in air, and loses $8\frac{3}{4}$ ounces when weighed in water.

VI.

Name the properties of the solar spectrum, and account for the colors of the spectrum.

VII.

Show by a figure why objects look larger when seen through a convex lens, and smaller when seen through a concave lens.

GEOMETRY.

Demonstrate the following theorems : —

1. Straight lines bisecting the adjacent angles of a parallelogram are perpendicular to each other.

2. The sum of the lines drawn from a point within a triangle to the extremities of one of the sides is less than the sum of the other two sides.

3. If there are two sets of quantities in proportion, their products or quotients, term by term, will be in proportion.

4. The area of a trapezoid is equal to half the product of its altitude, and the sum of its parallel sides.

5. The square described on the hypotenuse of a right-angled triangle is equivalent to the sum of the squares described on the other two sides.

FOURTH CLASS.

FRENCH (Magill's Grammar and Reader).

I.

Translate the following into English, and answer the questions : —

1. Le général américain est brave et courageux.

2. Votre chien est plus grand, plus gros, et plus vieux que le nôtre.

3. J'ai perdu plus de dix francs.
4. Donnez-moi de bon pain et de bon beurre, de bonne viande et de bonne moutarde, de bons œufs, et de bonnes pommes.
5. La lune est la cause des eclipses de soleil.
6. Plural of *général*. Give the rule.
Plural of *courageux*. Give the rule.
7. Give the feminine form of *vieux*.
Compare *grand*.
8. Why *de* (3) instead of *que*? Show by spelling how *dix* is pronounced when before a consonant, when before a vowel, and when alone.
9. What is *de* (4) called? and what does it denote?
The formation of the feminine of *bon* comes under what rule?
10. Gender of *soleil*. Suppose it were *du* soleil, instead of *de* soleil: how would you render it?

II.

Translate into French: —

1. Two hundred and twelve men.
2. Eighty-one horses.
3. Some happy sisters.
4. A mouse and a clock.
5. A book as good as mine.

BOTANY.

1. Define a flower, a perfect flower, a complete flower, a regular flower, a symmetrical flower, a naked flower, a solitary flower, an axillary flower, a diœcious flower, a monœcious flower.
2. Give the structure of the stamen.
3. Name the parts of the blade of the leaf.
4. What are excurrent trunks, and how are they formed?
5. Name and give examples of the principal special forms of leaves.

ALGEBRA.

1. From $4a^2x - (2abc - 4bc + 8d)$ subtract $8abc - (4a^2x - 2d) + abc$.
2. Multiply $x^2 + xy + y^2$ by $x^2 - xy + y^2$.

3. Divide $3a^4 - 8a^2b^2 + 3a^2c^2 + 5b^4 - 3b^2c^2$ by $a^2 - b^2$.
4. Reduce $\frac{(a^4 - b^4)(a^2 + 2ab + b^2)}{(a^2 - 2ab + b^2)(a^2 - b^2)(a + b)}$ to its simplest form by inspection.
5. From $x - \frac{a + b}{2}$ take $2x + \frac{a - b}{c}$.
6. Divide $\frac{a^2 - b^2}{a^2 + 2ab + b^2}$ by $\frac{x(a - b)}{(a + b)^2}$.
7. Divide $\frac{\sqrt[3]{-64a^8b^2}}{b}$ by $(-2a^2bc^3)^5$.
8. Subtract $(a - 2b)^5$ from $(a + 2b)^5$. Use the Binomial Theorem.
9. In a mixture of wine and cider, one half of the whole, plus twenty-five gallons, was wine; and one-third part, minus five gallons, was cider: how many gallons were there of each?
10. Solve the equations $\frac{x}{7} + 7y = 99$.
 $\frac{y}{7} + 7x = 51$.

ENGLISH LANGUAGE (Parker's Exercises).

I.

In what respect are the following sentences faulty? Correct each, and give the rule:—

1. The lady was sewing with a Roman nose.
2. We rested beneath the umbrageous foliage of a shady oak, and then resumed our journey anew.
3. The farmer went to his neighbor, and told him that his cattle were in his field.
4. Such a sight was enough to dumbfounder an ordinary man.
5. When I made some *à propos* remarks upon his conduct, he began to quiz me.
6. "Let go the halyards," shouted the captain: "haul up the clew-lines, lay aloft, and furl the sail."

II.

1. Define "allusion," and give an example.
2. Define "metaphor," and give an example.
3. Define "hyperbole," and give an example.

III.

1. Make a plan of a description of the Newton High School-house.

2. Write out the description according to the plan.

Correct the errors in the following sentences, and give the rules:—

1. The man came tuesday and will remain during the winter.

2. The All Powerful god commands us to worship him, and not to bow down to Gods of wood and stone.

3. I am unable to inform you where i shall be next Summer.

4. said my brother "see that payment is immediately made."

5. we have lately published a work called high Life below stairs.

6. P P Norton m d L L D..

7. The author dreads the critic the miser the thief the criminal the magistrate and everybody public opinion

8. Lend lend your wings i mount i fly

9. Books and study only teach the proper use of books.

10. The ancients feared death we thanks to christianity fear only dying.

The courses of study at the High School are as follows :

GENERAL COURSE.

FIRST YEAR. — FIRST TERM.

English Language, 3 ; Natural Philosophy, 3 ; Music, 1 ; Drawing, 2 ; Latin, 3 ; * French, 3 ; * Algebra, 3 ; * Zoölogy, 2.*

SECOND TERM.

English Language, 3 ; Natural Philosophy, or Botany, 3 ; Music, 1 ; Drawing, 2 ; Latin, 3 ; * French, 3 ; * Algebra, 3 ; * Mineralogy, 2.*

SECOND YEAR. — FIRST TERM.

English Language, 3 ; Chemistry, 3 ; Music, 1 ; Drawing, 2 ; Latin, 3 ; * French, 3 ; * Geometry, 2 ; * Geology, 2.*

* Elective Studies.

SECOND TERM.

English Language, 3; Chemistry or Astronomy, 3; Music, 1; Drawing, 2; Latin, 3;* French, 3;* Political Economy, 3;* Geometry, 2.*

THIRD YEAR. — FIRST TERM.

English Language, 3; Physical Geography, 3; Music, 1; Drawing, 2; Latin, 3;* French, 3;* German, 3;* Trigonometry, 2;* History, 2.*

SECOND TERM.

English Language, 3; Physiology, 3; Music, 1; Drawing, 2; Latin, 3;* French, 3;* German, 3;* Constitution of United States, 3;* Surveying, 2;* History, 2.*

FOURTH YEAR. — FIRST TERM.

English Language, 3; Mental Philosophy, 3; Music, 1; Drawing, 1;* Latin, 3;* German, 3;* Rhetoric, 2;* History, 3.*

SECOND TERM.

English Language, 3; Moral Philosophy, 3; Music, 1; Drawing, 1;* Latin, 3;* German, 3;* Rhetoric, 2;* History, 3.*

Declamation and Composition throughout the course.

COLLEGE COURSE.

FIRST YEAR. — FIRST TERM.

English Language, Latin, Algebra, Music, Natural Philosophy,* French,* Drawing.*

SECOND TERM.

English Language, Latin, Algebra, Music, Natural Philosophy, or Botany,* French,* Drawing.*

* Elective Studies.

SECOND YEAR. — FIRST TERM.

English Language, Latin, Greek, Geometry, Music, Chemistry,* French,* Drawing,* Advanced Algebra.*

SECOND TERM.

English Language, Latin, Greek, Geometry, Music, Chemistry or Astronomy,* French,* Drawing,* Advanced Algebra.*

THIRD YEAR. — FIRST TERM.

Latin, Greek, Music, French,* German,* Drawing,* English Language,* History,* Geography,* Advanced Geometry.*

SECOND TERM.

Same as first term.

FOURTH YEAR. — FIRST TERM.

Latin, Greek, Review of Algebra and Geometry, Music, English Language,* German,* Analytic Geometry,* Use of Logarithms,* Drawing.*

SECOND TERM.

Latin, Greek, Review of Geometry and Arithmetic, Music, English Language,* German,* Analytic Geometry,* Use of Logarithms,* Drawing.*

Declamation and Composition throughout the course.

MERCANTILE COURSE.

FIRST YEAR. — FIRST TERM.

English Language (Study of English Composition, Declamation, Reading of English Authors), French, History, Writing, Music. Other studies may be elected from the General Course.

* Elective Studies.

SECOND TERM.

English Language (same as first term), French, History, Writing, Music, and Elective Studies.

SECOND YEAR. — FIRST TERM.

English Language, French, History, Commercial Geography, Writing, Music, Elective Studies.

SECOND TERM.

English Language, French, History, Commercial Geography, Political Economy, Writing, Music, Elective Studies.

THIRD YEAR. — FIRST TERM.

English Language, French, German, Commercial Arithmetic, Book-Keeping, Writing, Music, Physical Geography elective.

SECOND TERM.

English Language, French (including French Mercantile Correspondence), German, Commercial Arithmetic, Book-Keeping, Constitution of the United States, Writing, Music, Physiology elective.

That the study of Commercial Arithmetic and Book-Keeping may be entirely practical, the teachers who will have this department in charge will familiarize themselves not merely with text-book rules and forms, but with the actual work of some of the best business houses.

Scholars in the other courses will be admitted to the work of any year in the Commercial Course for which they are fitted; other studies at first being received as equivalents of those in the prescribed course.

Lectures on various topics suited to those preparing for business life will be given at stated times by competent gentlemen.

Below are the names of the graduates of the Class of 1875: —

FOUR YEARS' COURSE.

CARRIE L. BOURNE,	MARY E. TUFTS,
NELLIE N. COLE,	SARAH E. TUFTS,
ELLEN F. DALRYMPLE,	MARION E. WILLIAMS,
MARY G. DAY,	ISAAC T. BURR, JUN.,
ANNIE F. GAGE,	OLEN L. CARTER,
LUCIA D. GUILD,	OLIVER M. FISHER,
J. MAUD LINCOLN,	HENRY E. GORDON,
SARAH E. LYON,	WILLIAM W. JOHNSON,
MARGARET A. MAGUE,	LYMAN W. KING,
CARRIE J. NEWELL,	ARTHUR W. KELLEY,
HATTIE M. PEIRCE,	JAMES L. LESTER,
HELEN O. ROBERTS,	FREDERICK J. RANLETT,
ABBIE A. RYDER,	WILLARD E. SMITH,
NELLIE S. SHERMAN,	WILLIAM H. SYLVESTER,
BRADFORD S. TURPIN.	

THREE YEARS' COURSE.

LILLIE R. BROUGHTON,	MORTIMER B. ALLEN,
BERTHA FORBES,	JOSEPH F. BATCHELDER,
MARY E. JENISON,	EDWARD W. COOK,
EMMA A. PAGE,	GEORGE M. CRANITCH,
CORA G. PLIMPTON,	CHARLES S. JOHNSON,
NELLIE M. SULLIVAN,	CHARLES R. NOYES,
ALICE E. SINCLAIRE,	HERBERT F. SYLVESTER,
ELLA WARREN,	EDWARD B. TOWNE,
ALICE M. WOODWARD,	JESSE WARREN.

REPORT OF THE COMMITTEE ON THE BIGELOW, UNDER- WOOD, LINCOLN, AND JACKSON SCHOOLS.

THE Committee of District makes the following brief report : —

The discipline of the various classes composing the district has been in most cases excellent, and the deportment of the pupils usually refined and satisfactory. Only a small amount of severity has been necessary to accomplish this end. The even requisitions of most teachers, their own quiet deportment, and the steady support of the community, will always give similar results.

Truancy in a few cases at the North Village seems to have been followed by steady attendance, and interest in the work. The district is growing in numbers. It has not correspondingly increased in classes. The present committee does not intend that it shall. The better classification that increasing numbers have thus far given makes it possible that a teacher should teach even fifty with comfort and success. Some have even more than that, and with progress highly satisfactory. The majority of our pupils go from class to class up the grade. Industry, docility, and good health give us often, however, a chance to make an exception. It is the intention of the com-

mittee, that children shall not be forced up if not qualified to go, nor kept back when they are able to take more rapid steps. To this end the master of the district keeps a watchful eye ; and on this point we hope no parent in the community has cause of complaint.

The standing of the pupils at the time of graduation is best indicated by what they are able to do on entering the High School. In this it is believed that our record is good. The closing exercises of the school year pointed also and plainly to very good teaching. The curriculum has been increased by some elementary physiology and physics. We leave that change to speak for itself. A few teachers have resigned. In filling their places the committee have asked themselves the question, Who will best fill the vacant places? and believe they have governed themselves accordingly. They regret even the temporary absence of the head assistant in the Bigelow,—a highly valued co-worker with the conscientious energetic master of the district.

Respectfully submitted by

H. C. HARDON.

REPORT OF THE COMMITTEE ON THE CLAFLIN AND ADAMS SCHOOLS.

AN interesting report of one of the schools in our district was read at our last meeting by the gentleman from Ward Three. Important facts were presented, and practical suggestions made, that are valuable to this Board.

Your Committee would report, that while in many respects the condition of the Claflin and Adams Schools, which are more particularly under our care, is favorable, and the work of the teachers faithfully performed, yet a deficiency is evident in some of the homelier elementary branches of study. We consider, in the education of children, of first and foremost importance, reading, arithmetic, and language. We would by no means disparage music, drawing, or other excellent and desirable studies, but desire to insist that the closest attention and the best efforts of both teachers and pupils shall be given to the practical and indispensable studies which we have named.

We do not wish to underrate the commendable progress of our schools, or fail to appreciate the efforts and success of our tried and competent teachers; but we think that the advantage of continued

instruction under the same teachers year by year, together with the facilities which our schools enjoy, should produce even greater results.

While the division of time for each study may seem to be the best, we find in Class Seven, where a little more time has been spent upon arithmetic, a good result has been attained. The only change of teachers during the past year was made in this class in the Adams School; and good work has been done. With the time allotted to each study, we feel that the teachers have done well.

Our schools are not academies for the further culture of already trained minds, nor are they modelled to furnish special instruction for children of genius or marked ability in any particular direction; but they are conducted upon the principle of the best good for the average scholar; and your Committee feel assured that parents will not be satisfied that our schools are in the best possible condition, until even greater proficiency is secured in these practical studies.

Respectfully submitted by your Committee,

H. C. HAYDEN.

REPORT OF THE COMMITTEE ON THE PIERCE, DAVIS, AND FRANKLIN SCHOOLS.

THE order requiring the local committees to report the schools under their immediate charge having been adopted after a part of the school year had passed, necessitates such report from memory, as we have no memoranda of earlier visits.

In reviewing the schools in Ward Three the past year, while there may not have been any cases of excellence requiring special mention, we are convinced the general average of success has been above that of previous years. Our schools have enjoyed the past year, to a greater extent than usual, the three conditions necessary, in fact indispensable, to the best success; viz., comfortable and convenient accommodations regular and punctual attendance, and an earnest co-operation on the part of the scholars, teachers, and parents, in the work to be done.

At the close of the previous school year, the Franklin School was in a somewhat demoralized condition, growing largely out of the effort to accommodate a class of older boys than usually attend our schools, who, being out of work during the winter of 1873-74, applied for admission to the schools; and while the larger portion thus admitted worked faith-

fully, and improved the opportunity given them, a smaller portion did not appreciate the advantages thus given and so much needed; and their influence upon the younger scholars was such that it was found necessary to remove all those who had been admitted, to a room in the Pierce School, and place them under the charge of another teacher. This afforded some relief; but the effects of evil association were but too apparent until the close of the year.

But two of the rooms in the Franklin building had been occupied at the close of the schools in June, 1874. At the commencement of the schools in September, the larger number of scholars further increased by some sent from the Davis School for want of room, it was found necessary to open the four rooms in the Franklin building; and the schools were placed in charge of an experienced and successful teacher, who with the earnest co-operation of her three assistants, aided by the timely suggestions and coercive support of the master, with the watchful care of the truant-officer, has given us at the close of the year a school which in discipline, in punctual and regular attendance, and in general school-work thoroughly done, will compare favorably with any other school in the district.

The schools in the Davis building have fully sustained their previous well-earned reputation. The highest and lowest grades in this school have been fortunate in retaining the services of their respective teachers for so long a time. Several graduates from the High School, and one from Harvard College in the class of 1875, commenced their school course with the same teacher who now has charge of the first primary school.

The rule, admitting on the 1st of April such scholars as will be five years old at the commencement of the next school year, caused much inconvenience in this school from want of sufficient room, and dividing the work of the teacher at the time when her regular class required the most attention to prepare them to pass on to the next grade. The experience of the past year in both the first primary schools in this ward would suggest the inquiry whether the advantage to those entering for the last three months of the year was greater than the loss caused by their entrance to the regular class.

At the commencement of the winter term, it was found that an unusually large number of scholars in the sixth and seventh classes were unable to perform the work assigned them. A part of them were the natural result of graded schools, those who from irregularity of attendance or other causes had failed to do the work in the lower classes; but the larger portion were older boys who had been taken out of school one year or more through the spring, summer, and fall months, and upon their return in winter found the classes to which they had formerly belonged so far advanced that to join them, and attempt to do the work which they could not understand, would be a waste of time and an injury to the rest of the class. Under these circumstances it was thought advisable to form a special class; and, as the larger portion belonged to the seventh class, they were placed in charge of the teacher of that class, who divided her time between this special and a regular seventh class, which was now able to take the allotted work, and perform it in its regular order. The work

of the special class was left to the discretion of the teacher under the direction of the master. As the older boys were expecting to leave school at the close of the term, they were drilled more especially in reading, spelling, and arithmetic; while those who were intending to continue in school reviewed the sixth, and took some portion of the seventh class work, and at the beginning of the present school year joined the seventh class, and are now holding a respectable rank.

Inquiry among the scholars of the eighth and ninth classes, since the adoption of the order making the study of drawing elective in those classes, shows that about one-fourth the number would prefer to exchange drawing for some other study. The larger portion of those are the older boys, who from irregularity of attendance or other causes have not done thoroughly the work in the lower classes, and who do not propose to continue their studies beyond the Grammar School, some of them not beyond the present term. This limited time suggests the necessity of attending to those studies which shall be of the most practical advantage to them; and the teacher, relieved from spending her time with those who take little or no interest in drawing, can give her whole attention to those who are interested, and may make the study profitable to them.

We cannot close this brief review of our schools without bearing testimony to the faithful and efficient manner in which the teachers, one and all, have discharged the duties devolving upon them. The master, dividing his time between the three schools in this ward and two of the schools in Ward Two, has

devoted himself, in school hours and out of school hours, to the thorough accomplishment of the work assigned to the schools under his charge ; receiving, as he has deserved, the earnest and willing co-operation of all the teachers under his direction. Sustained by the entire confidence and frequent encouragement of the parents, aided by a long and successful experience in teaching, he has brought to bear upon our schools a large influence ; and the result is seen in their present satisfactory condition.

In behalf of the Committee,

E. W. WOOD.

REPORT OF THE COMMITTEE ON THE WILLIAMS AND HAMILTON SCHOOLS.

THE pupils in the Williams School were invited, at the beginning of the year, to rooms thoroughly renovated and improved, presenting an attractive appearance.

The several departments of these schools were placed in charge of teachers, with hardly an exception, of large experience.

The results of the examinations, as made by the Committee, have been alike creditable to pupils and teachers. A constant improvement has been made in methods and work. Good progress has been made in all of the studies pursued.

The discipline has been mild, yet firm and effective; the deportment very good.

A great improvement has been made in the attendance of pupils as compared with preceding years.

The pupils have generally, by close application to their studies, gained their promotions. A good class graduated from both schools, nearly all entering the High School. No changes in teachers have been made during the year.

All the teachers have manifested an earnest desire

to do all they could to promote the happiness and welfare of those committed to their charge.

To their fidelity in the discharge of every duty devolving upon them, the Committee with pleasure bear grateful testimony.

JAS. E. LATIMER, }
ISAAC HAGAR, } *Committee.*

REPORT OF COMMITTEE ON PROSPECT SCHOOL.

IN reporting upon the standing of these schools, I may be excused for going outside of this district, and remarking that, the opportunity which formerly existed, for any one of the Committee to claim for the schools under his special supervision superiority in comparison with other schools in the city, does not now exist, owing to the system which has been adopted in connection with the employment of a Superintendent, that compels uniformity, not between individuals, but schools, which we had previously failed to produce; not that the standard of the better has been made lower, but that that of the less successful has been raised to them; and therefore you are spared the report, from year to year, that such and such schools have failed to meet the expectations of the Committee. This feature alone will justify us in claiming that progress has been made in their general condition.

The schools of this village have been fortunate through the past year, that no changes have been made in their corps of teachers (the circle not having been invaded as heretofore, and its members captured by the much-dreaded widower, or the roaming committee-man, or teacher from our neighboring

cities), who have continued to be both able and willing to devote themselves, in school and out, to the interests of their pupils. By co-operating with the special teachers with whom they have been associated, they accomplish the best results, and I am satisfied that they have generally received the approbation of their patrons and of the Committee.

Excellent order has been maintained in the school-rooms and on the premises by the several teachers, without recourse to severity.

Promotion under our reasonably high standard is indicative of the success attained by the efforts of the teachers, and which has proved highly creditable to them.

The ninth and eighth classes under the instruction of the master and his assistant, but principally of the latter (the master's duties being of a general character through the district), and the seventh and sixth under the first assistant, were promoted entire; and the fifth, fourth, third, second, and first with but a few exceptions, which were excusable by those acquainted with the circumstances; showing that the master and all his assistants are worthy of the confidence of the parents and patrons of these schools.

Much might be said of the value of the special teachers employed for music, writing, and drawing, as elements of success to the schools; but justice will be done them by the Committee whose duty it is to report on those subjects.

I am aware that a feeling exists in the community, to a considerable extent, that the system of conducting our schools is not as good as formerly, and that

the results are not equal to them ; and it is easy to appreciate the views entertained by those who have seen the results of the old system under the very best of teachers, where but a small range of studies was prescribed. But it must not be forgotten that six hours of the hardest labor was required in school, and from the scholar of average ability, and less, from one to three hours out of it, to produce those results.

It is not reasonable to expect that the same proficiency in all the branches of the broad range of studies pursued, and now considered necessary, should be attained, considering the small amount of time which can be given to study in school, in a measure owing to the reduced hours, with the general aversion by all parents that their children shall be required to study regularly at home. I will add, that the important requirement of the old system, long school-days and the required study at home, the results of which we look back to with so much satisfaction, has but a few friends at this time ; but I claim, that, until a partial return to it is approved by public opinion, the most important element of success to the young, the acquirement of knowledge by individual effort, will be sacrificed.

J. A. GOULD.

REPORT OF COMMITTEE ON THE HYDE SCHOOL.

THERE are two schools in the Hyde Schoolhouse at Newton Highlands. Both have remained during the year under the teachers who have taught them since their organization.

Miss Alotta E. Stearns has charge of the primary school, in which there are three classes, and about fifty pupils. The teacher who has three grades to instruct, and keep well advanced according to the established standard, has a somewhat harder task than the teacher of a single class. Miss Stearns has worked faithfully and skilfully. She wins the affection and confidence of her pupils, who find their school a pleasant place, and are not willingly absent from it. During the past year there has been a noticeable improvement in regularity and promptness of attendance. The work with these primary scholars is, of course, in a great degree directed to the awakening of interest in the topics presented, and to training the mind to habits of attention. These essential points are not overlooked in this school.

The two grammar-school classes of the Hyde School (Classes IV. and V.) are instructed by Miss Mary J. Fisher, who was the first teacher employed

in the village at a time, not long ago, when the only school numbered scarcely a dozen pupils. Her school at the present time is not quite so large as before the summer vacation, but numbers about thirty pupils. There was a time when the discipline of this school made severe demands upon the teacher's tact and energy; but there has been no serious trouble in that particular during the past year. In all their studies the pupils show commendable interest; and the average proficiency of the classes is good. Your Committee's examinations have made him satisfied that the pupils are not only carefully drilled in the recitation of lessons, but are so taught that they discover and understand the sense, as well as the letter, and are disciplined to think for themselves.

The piano purchased for the Hyde School last spring is placed in Miss Fisher's room; and several times daily it is enjoyed by the pupils of both rooms. Unquestionably the benefit resulting is great. The schools would seem quite different without it. A piano in the schoolroom, and frequently used in connection with singing and marching exercises, is a helper in the educational work.

Within the past year some work has been done toward the improvement of the schoolhouse grounds. They were ploughed in the spring, and graded as much as was practicable. In the fall they were seeded down. About fifty trees have been planted, which give promise of thrifty growth, and of pleasant shade at no distant day. Gravel walks have been constructed from the rear entrances to the yard on Lincoln Street to the schoolhouse. These are a

great convenience for scholars coming from Lincoln Street and north of it. There is need of some additional outlay to complete the finish of the yard in the neat style characteristic of most of the school premises of the city. It is earnestly hoped that the city will some time have the means and the disposition to remodel the building so that the large and pretentious ugliness of its proportions may be modified in the interest of that education in good taste which a civilized community is under moral obligation to supply by its public buildings.

One testimony to the fidelity and discretion of the teachers of these schools deserves to be recorded : Not a single complaint of hardship or injustice has come to your Committee from any quarter.

WALTER ALLEN,
Committee on the Hyde School.

REPORT OF COMMITTEE ON THE OAK HILL SCHOOL.

UNTIL the end of the school year in June, there were two schools at Oak Hill, containing together less than forty pupils. At the beginning of the fall term, the schools were united, in accordance with the vote of the School Committee. The consolidated school was given in charge of Miss Mary E. Minter, who had been at the head of the most advanced of the two schools for a few months. The school now occupies the south room of the schoolhouse. There have been about thirty scholars in attendance. At the beginning there were six classes, corresponding with the first, third, fifth, sixth, seventh, and eighth classes of the graded schools. The seventh class, which was like "the freshman class of *one*," immortalized in Dr. Holmes's poem, was, after a few weeks, promoted in a body; and there are now but five classes. As each of these five classes recites several times a day in different studies, the Oak Hill School is a busy place. If any one finds leisure in school hours, it is not the teacher. It is not likely that any other teacher in the city, whose responsibilities are limited to a single room, has a task so arduous and exhausting as Miss Minter's; and it is a pleasure to bear testimony in this report to the devotion, energy,

and success of her application to the duties of the position. Your Committee believes that under her administration, and largely owing to her tact and endurance of hard work, the change made is proving a beneficent one. It is manifest that when all the stages of a child's education, from the primer class until fitted for the high school, are directed by one teacher, it may be wise to modify in many respects the rigid class system of the graded schools. Indeed, it must be modified ; but if wisely done, it need not entail any loss of acquirements or discipline. Your Committee believes that the pupils of the Oak Hill School are making better progress than before, and that the conditions of a good school, so far as they are dependent upon the city, are all present. The spirit and enthusiasm of the pupils have certainly improved since the union. One serious drawback is irregularity of attendance, some parents seeming quite indifferent whether their children go to school, or not ; but the evil is no greater since the union than before.

A class of four was graduated from this school last summer. One or two of these had been promoted to the graduating class out of due course, and showed their appreciation of the fact by diligent and earnest study. All the classes appeared well at the summer examination.

WALTER ALLEN,
Committee on Oak Hill School.

REPORT OF COMMITTEE ON THE MASON SCHOOL.

THE Committee are glad to speak in terms of commendation as to the general appearance of the various classes. The teachers give evidence of earnest labor, and in most respects with gratifying success. The results in language, mental arithmetic, music, and drawing are indicative of careful teaching. In the reading and written arithmetic of some of the classes, the Committee would have been glad to find more marked improvement.

Until the beginning of the fall term, there was no special teacher in penmanship. Since that time, under the care of the present instructor, the improvement is more marked.

The importance of the teacher's office, and the large demands it makes upon its occupant in order to secure the best results, are not likely to be overestimated. Therefore it is desirable that the teacher bring into the work the most complete preparation possible. As the stream will not rise above its source, so the scholar may not be expected to attain to or strive after a higher standard of excellence than is placed before him in the teacher. The moral character, the scholarship, the culture and general deportment of the instructor, will be looked upon as

the measure of what is expected of the pupil. Refinement in manner and speech, accuracy in scholarship, and neatness in personal appearance, as well as dignity in intercourse with the pupils, and with each other in the presence of the pupils, will have an important influence for good upon the school; while the absence of these cannot be otherwise than prejudicial to its highest interests. Nor is it sufficient that the teacher should be conscientiously desirous of doing his whole duty. The true teacher is endowed by nature with certain intuitions requisite to his profession, and no amount of application can wholly compensate for their absence. In many of the teachers of the Mason School we are happy to recognize these qualifications. Newton cannot afford to employ inferior teachers.

It is not possible for a thoroughly competent teacher to wholly sink his individuality: while conforming to the general plan of instruction, and adopting its general routine, he cannot well be hampered with too much of detail. He must to some extent be allowed to work in his own harness, and, if qualified for the position, may safely be allowed to do so. In the matter of reading particularly is this illustrated. If good readers be produced, it matters little whether in the process the teacher shall use ten pages or one hundred. Something being left to his discretion, the teacher may be more rigidly held to responsibility for results.

The Committee have the conviction that there exists another evil more easily told than provided for. The order of exercises in the various classes is

such that a very large proportion of each school session is occupied by recitations and general exercises, to which each pupil is expected to give attention. This is certainly well with the younger pupils; but with the older classes there seems to be a lack of time for the study of the lessons assigned. We do not think any amount of aid rendered by the teacher in a general way will compensate for the lack of careful study on the part of the pupil. He must learn to investigate and solve difficulties for himself. The ambitious pupil will do this. If time fails him in school, he will take it elsewhere. But too many are content with a lower standard. The result is, that the somewhat indolent learn to lean too much upon others, instead of becoming self-reliant.

For the Committee,

JAMES S. NEWELL.

INDUSTRIAL DRAWING.

IN the report of the Superintendent will be found a detailed statement of the industrial drawing. The general outline of the work of last winter was given in the last report. The classes in mechanical drawing were well sustained, and showed the results of good teaching and good attendance. None of the drawings were exhibited in Boston; but a number of them were exhibited to the School Board, and gave evidence of successful work. They were drawings from the model in every instance, none from the flat. Mr. Andrews did good work for the class, and was indefatigable in his efforts. We had hoped to secure his services for the present season; but from the pressure of business he was obliged to decline. The Committee, however, deem themselves very fortunate in securing the services of Mr. Otto Fuchs, who has charge of the same department at the Normal Art School, and at the South Boston School of Art. He is also the draughtsman of a large manufacturing establishment at South Boston, so that your Committee felt perfect confidence in him. The result has more than exceeded our anticipation. Mr. Fuchs has at once realized the needs of his classes, and has adapted his instructions to their wants. The classes consist

of men who seem to be in earnest, and therefore likely to receive great benefit.

The hall of the Mason School is admirably fitted for evening instruction; well lighted, and furnished with all necessary conveniences. The class here is considerably larger than the one at Newtonville. The instruction is necessarily adapted to the wants of architects, machinists, and carpenters who have had some training, and to those who have had no previous training. This requires various diagrams and lectures from the blackboard by Mr. Fuchs; consequently he can take but little time to examine individual work, and render assistance to individuals. It has been found necessary at Newton Centre to furnish him with an assistant who can see that his instructions are properly appreciated and carried out by individuals. The class at Newtonville is smaller, and the services of an assistant therefore are not required.

At both these schools, doubtless, the attendance would be much larger, were the facilities for going and returning better.

In the freehand department the classes show great interest. Mrs. Bowler is not only an artist, but also a teacher who understands the needs of classes. She therefore adapts her instructions not to the wants of a few; but, knowing herself what her pupils need, she puts them upon such work as she considers most profitable for them. With a well-defined plan for her entire course of lessons, her work is progressive in character; and, for those who are sufficiently interested to attend regularly till the close of the course, there will be a rich reward in the acquisition of val-

uable knowledge upon art, and the mechanical proficiency which comes from practice under a genuine teacher. We only wish that many more knew of the advantage open to them without the cost of any thing but a little self-denial and effort.

In behalf of the Committee,

JOHN A. GOULD, *Chairman.*

MUSIC.

WE are glad to report that another year has passed without any drawback to the successful prosecution of the admirable work in music now going on in all the thirteen classes of our public schools. We hear occasional criticisms against it; but, if those who are disposed to cavil would take the trouble to look into the matter, they would soon be convinced that we can ill afford to check the system which is bringing higher and higher results each year. If it is let alone it will demonstrate its worth more fully each year. Frequent changes from outside pressure will often do more harm to the successful prosecution of any well-settled policy in educational work, than years can undo. If a better method can be shown, there should be no hesitation in adopting it; but to overthrow a good system which is working well, and proving its value more and more each year, merely on the ground of economy, is no more a measure of economy than any short-sighted policy in finance which cannot look beyond the interests of the present moment.

The teacher of music is working faithfully and successfully. As the well-trained voices come up into the higher grades, a higher and better class of music

may be attempted successfully in these upper grades. We look for a higher appreciation of music among the citizens of Newton, in the coming years, as these pupils take their places in the social life of our city. Every home will be elevated in time by the higher musical sentiment, and by the appreciation of that which is truly classical.

The Italian and German musical sentiment is not an accident, but an outgrowth of the training of those who have studied the composition of the grand old masters. The trivial popular airs which gain a foothold in America can find no place there, as the classical taste stamps them at once as spurious. In our public schools must be laid the foundation of a similar taste for music, which by cultivation in after-years shall bring us as a people more of that elevated enjoyment so universal among the Germans and Italians from lowest to highest.

In the report of the Superintendent will be found a statement in detail of the work in music, to which I would refer all who desire an exact knowledge of the work now going forward.

In behalf of the Committee,

JAMES E. LATIMER.

DRAWING.

THE Drawing Committee presents the following report to the Board.

The great motives that have influenced educational Boards to make this a part of regular Primary and Grammar School work are the following: —

1. Its great value in developing the faculty of observation and comparison.

2. Its immense utility as a preparation for skilled labor of any kind as applied to the mechanical arts.

3. Its subsequent power upon the adult, preparing him for some of the more refined pleasures to which he would otherwise be nearly a stranger. On these truths we shall deliver no address. They are admitted by all that have given the subject any protracted attention and study. To use this truth for the best interests of Newton schools, has been the object of the Newton Board, and especially of the Sub-Committee on Drawing.

Each year reveals the fact anew to the unconverted, that there is no more difference in power to draw than in power to read or write. It cannot be doubted that the items of value, stated at the head of this, apply to all children intelligent enough to attend the public school; and we trust that the eight

per cent of time allowed by the School Board as the maximum will not seem at any time an undue proportion to the study.

To have the subject appreciated and loved by the pupil, it is necessary that all elementary art-knowledge should be a part of the teacher's qualification. To this end the teachers have been giving attention to the instructions of the Drawing Instructor for the City, and have in most cases reaped large advantage, and new confidence in the old and some knowledge in a new branch of elementary work. The proof of this lies both in the result of the teachers' examination near the close of the school year, and the appearance of the pupils' drawing-books, all of which in the city, save those at Oak Hill, were examined by the Chairman of the Drawing Committee near the expiration of the summer term. Quite a large portion of our teachers now hold certificates of qualification to teach Freehand, Model, and Geometric Drawing.

The Instructor for the City still gives these necessary lessons to the teachers on old or new subjects; and it is the desire of the Committee, that any dislike for drawing that may occur with any pupil in the City shall not have bad teaching as the cause.

No one will probably imagine that the drawing curriculum in a Grammar School can ever attain to more than a very few subjects. They are to art what spelling and addition are to language and mathematics, — the keys that can unlock more difficult art-subjects as the mind matures. By these faithfully insisted upon, large aptitudes will often be found, and wonderful capacity occasionally though

rarely revealed. To find the latter while best educating all the former, is to give sure promise of art triumph in the future in fields old and new.

Finally, this elementary knowledge should soon be so completely the knowledge of the Primary and Grammar teacher, especially in all cities and large towns, that the services of an extra special instructor for such schools shall no longer be required. To have the public mind made up to stay made up, its flag nailed to the mast, is to put new vigor into elementary drawing in public schools, and increased qualifications in this subject among the present and future ambitious teachers. It will save public money, better the quality of the instruction, and soon present to us a generation to testify by experience of its utility.

HENRY C. HARDON,
Chairman of the Drawing Committee.

SUPERINTENDENT'S REPORT.

TO THE SCHOOL COMMITTEE OF NEWTON.

Gentlemen,— The time has come for submitting to you and through you to the people of Newton, my third annual report, which will constitute a part of the thirty-sixth annual report of the schools of Newton.

As the preparation of a report of this kind, with its statistics, history of a year's work, with suggestions and recommendations, requires considerable time, I will confine my report for this year more particularly to the actual work done, referring you to previous reports for the statement of my views upon certain topics there discussed, as they remain unchanged.

The number of children in Newton on the first of May, 1875, between the ages of five and fifteen, which the School Committee caused to be ascertained in accordance with the provision of Sec. 1, Chap. 40, of the General Statutes, was found to be 2,845, divided among the several wards as follows :—

Ward 1	.	.	.	.	.	.	518
“ 2	.	.	.	.	.	.	617
“ 3	.	.	.	.	.	.	498
“ 4	.	.	.	.	.	.	382
“ 5	.	.	.	.	.	.	369
“ 6	.	.	.	.	.	.	461
							<hr/>
Total	.	.	.	.	.	.	2,845

The average whole number belonging to all the schools during the school year ending June 25, 1875, was . 2,568.2
The average attendance for the year was . . 2,347.8
The per cent of attendance was . . . 91.5

The following table shows the attendance during each month:—

	Average Whole Number.	Average Attendance.	Per Cent Attendance.
September	2612.1	2474 5	95 5
October	2689.6	2548 2	94.3
November	2664.5	2488.6	93.5
December	2530.7	2239.	88.5
January	2468.1	2189.4	89 6
February	2418.3	2179.5	90.5
March	2423 2	2175.6	89.8
April	2612.2	2395 5	91.7
May	2671.9	2425 9	90.8
June	2591.2	2361.1	91.5
Total	2568.2	2347.8	91.5

From the table of attendance for the last two school years, it will be seen that the schools stand in the following order, from the per cent of attendance attained by each:—

FOR THE YEAR ENDING JUNE, 1874.

1 Hamilton,	94.9
2 Pierce,	94.5
3 High,	94.4
4 Bigelow,	92.5
4 Davis,	92.5
5 Adams,	91.9
6 Williams,	91.6
7 Prospect,	91.2
7 Lincoln,	91.2
8 Oak Hill,	90.1
9 Hyde,	89.9
10 Mason,	89.8
11 Franklin,	89.4
12 Jackson,	88.2
13 Claflin,	87.7
14 Underwood,	86.

FOR THE YEAR ENDING JUNE, 1875.

1 Davis,	94.5
2 High,	93.8
3 Hamilton,	93.7
4 Williams,	93.6
5 Pierce,	93.1
6 Adams,	92.8
7 Bigelow,	92.4
8 Hyde,	92.1
9 Claflin,	91.1
10 Franklin,	90.4
10 Prospect,	90.4
11 Mason,	89.4
12 Oak Hill,	88.9
13 Jackson,	88.2
14 Lincoln,	87.6
15 Underwood,	86.3

From the table it will be seen that the per cent of attendance for the last school year was 91.5. I find that this compares very favorably with that reported from many

other cities. Still it must be borne in mind, that this per cent is based not upon the number of school age belonging in the city, nor upon the whole number enrolled, but it is the ratio of the average attendance to the average whole number ; and as any scholar's name is dropped from the number belonging, after he has been absent five consecutive days, a longer absence does not affect the attendance. This is a method of "watering" the per cent, allowed and commonly practised throughout the State, which gives, however, a wrong impression. If the per cent of attendance were the ratio of the average attendance to the whole number enrolled, it would in all places be much lower. That per cent of the money appropriated for public schools which represents the true per cent of absence, would indicate the actual pecuniary loss to the city from absenteeism. Ample provision is made for the accommodation of all the children of school age, and if all were present no additional expense for teaching would be incurred.

In the school report from Fitchburg, for the year 1874, this matter is put as follows : " The average number belonging to the schools for the year, is 1883, and that there may be no misunderstanding of the expression 'belonging to the school,' I will state that a pupil is regarded as belonging to the school for the term, from the time he enters the school until he leaves it, whatever his occasional absence may be. He is not, however, regarded as belonging to the school until he enters it, nor after he has removed from town, or has gone to work in shop or factory or upon a farm, or has been expelled or is dead." He then shows that the per cent as usually given is 91.7, but based upon the entire enrolment is 69. I would simply call the attention of the Board to this matter, with the hope that through the influence of the various sub-committees, an additional incentive may be given to secure better attendance in some of our schools.

TRUANCY.

I am happy to report that the ordinance of the city council establishing an effective truant law, in accordance with the provisions of Sect. 1, Chap. 42, of the revised statutes has been faithfully carried out by the four truant officers appointed by the School Board at its regular meeting in February. With one exception it has been unnecessary to use extreme measures.

The fact that there is a law which can and will be enforced is generally a sufficient check upon those inclined to truancy. This evil, which, in the absence of any power behind the throne grows unbearable, has been easily suppressed.

By the aid of the truant officers, the law requiring every person having under his control a child between the ages of eight and fourteen, to cause such child to attend school for twenty weeks in one year, for two consecutive terms of ten weeks each, has in a few cases been enforced. The per cent of attendance during the past year has been but slightly affected by truancy. The primary schools suffered considerably last winter from colds, and various light diseases incident to childhood. The poor attendance of certain schools indicates more of indifference, or rather a failure to appreciate the importance of good attendance on the part of certain of the parents. The slow progress and the unsatisfactory results have in some schools during the past year been partly owing to this cause.

VENTILATION.

Most of our teachers have a due regard to the importance of a plentiful supply of fresh air, but I am sorry to say that there are still those who need to be continually reminded of the importance of ventilation. I trust that this matter will receive attention from the members of the school committee during their visits to their several schools.

Simply opening a window a little way at the top and

bottom is not enough, and often produces draughts to which the children ought not to be exposed ; but throwing all the windows wide open for a moment or two, twice beside at recess, and requiring the children to practise light gymnastics or to march, ought, with our ventilators, to keep every room in a healthy condition. I think that the practice of introducing the air of the basements into the rooms above through the air boxes has been stopped ; but in a few buildings still, the air of the basements becomes vitiated from their connection with the closets, and this foul air finds its way into the entries above.

The putting of a new furnace into the Prospect School will make that building comfortable, I hope, even in the coldest weather ; heretofore, upon a cold day it has been far otherwise. The furnaces now are ample for heating all the buildings, unless it be in extremely cold and windy weather, when it is difficult to keep many private houses comfortably warm, so that the occasions for dismissing the school on account of the cold ought to be extremely rare.

TEACHERS' MEETINGS.

During the past year, a few general teachers' meetings have been held for some specific purpose ; several meetings of primary teachers for considering the work required in that grade ; and once a fortnight a masters' meeting.

As the teachers are assembled weekly for a drawing lesson, I have hesitated to call them together much oftener, as either some of the valuable school time must be given up, or the meeting must be at an inconveniently late hour. The masters' meetings have therefore been the chief means for bringing before all the teachers any matter requiring attention. At these masters' meetings each month's work for the grammar grades was laid out, and questions upon each month's work were prepared for the written examinations. Also all points which the Superintendent or masters wished to discuss, were brought up here, and the

conclusions reached were communicated to all the teachers. The result of these meetings, was to bring all our schools into a more uniform system of work. I think, however, that it would be well to hold occasional meetings of teachers by grades, as the opportunity to compare notes, to relate methods, and to show results is stimulating and encouraging. At such a meeting, there is more freedom, than in a general one where there is not so much community of interest. I find that visiting other schools of the same grade as their own, stimulates teachers to greater effort, and the same results would naturally come from the meetings of teachers of a single grade.

In reviewing the work of the year now drawing near its close, I can see that more intelligent work has been done in the schools than during either of the two previous years. While I am fully aware of the faults of our schools, of some of which I shall presently speak, I can say without covering facts with any "rosy tinge" that the work of the teachers has been more intelligent, and productive of more intelligence than before. This is owing partly to the fact that, by paying a fair compensation, we are able to hold our teachers, and thus to derive the benefit accruing from their enlarged experience. Every teacher, worthy of the name, will do better and better work as the years roll along; but the greatest difficulty with which many towns must contend is that they lose their teachers just as they are qualified to do good work, by wealthier or more liberal cities and towns enticing them away. Some of our finest teachers have to my knowledge had offers of a higher salary in some of the cities and towns near us, but feeling that they have a fair compensation here, and taking a real interest in their work, they have staid with us. All honor to them for it; let such services be appreciated as they deserve. By the help of such teachers the Newton schools can and will improve. The salaries paid, entitle the city to fine, experienced teachers; no others unless the possessors of remarkable qualifications should be appointed.

EXAMINATION.

The plan for examination of the schools described in my last report was carried out successfully through the year. Eight monthly examinations were given upon four topics each time, so that thirty-two papers were prepared, and in addition examinations were given in music and drawing.

The good results were as follows. The weaker points were exposed and consequently received especial attention; the work became much more uniform throughout the city; the giving of too great prominence to one study, to the neglect of another, which had occurred and is always liable to occur, unless some check is placed upon it, was prevented; the later examinations in April and May gave evidence of much greater uniformity. Nothing subject to examination was liable to be neglected. Eight of the thirty-two papers were upon arithmetic and eight upon language, as these are considered the most immediately useful, and are good tests of mental growth. The remainder were divided among history, geography, spelling, synonymy and natural science. Examinations were also given in music and drawing. The writing was examined only through the medium of the other examinations.

The difficulty experienced in the preparation of a set of questions which shall be fair for the pupils of an entire city, was also by this system obviated; each month's work was assigned at the end of the previous month, and the examination of each month's work occurred on the month following, so that the work was laid out with great definiteness; consequently the questions were less liable to contain any thing which was not just. The scholars too were spurred to greater activity, knowing that these examinations were the same for all, and that their promotion would depend upon the results which they could show on paper. As all these papers were sent to the office of

the Superintendent for inspection after their examination by the teacher, an additional importance was given to them.

In accordance with the recommendation of the Committee on Rules and Regulations to this Board at the regular meeting in March, during the present school year, quarterly examinations of the schools are to be given by the Superintendent, and a report of the results of these made to the Board. The per cents obtained on these examinations will be the basis on which promotions are to be made, in accordance with the recommendation to this Board by a special committee at the regular meeting in May. The first of these examinations was given on the 18th and 19th of November, on the work of September and October. The next examination will be about the 1st of February, upon the work of November, December, and January. The questions for these examinations were prepared by the Superintendent, and on the night before the examination, those on arithmetic and language were submitted to the teachers, to prevent the giving of any which might possibly be unfair. Of the results of this examination, I will speak in another part of this report, but here I would like to say a few words upon what seems to me to be the best method of examination, in the light of the experience of the past.

No one knows better than the teacher of a class the pupils' knowledge of their studies, and at the end of the year she can tell what scholars are ready for promotion according to the standard of the school in which she teaches. Her own examinations are designed to train her pupils in habits of accuracy. An examination of a class by some competent person, who does not teach it, is at the same time an examination of the teacher's work, which every good teacher craves, and which every poor teacher fears. It is a more exact test of the character of the teaching, than an oral examination, for reasons which readily suggest themselves.

The system adopted last year seemed to me a fair one,

and the result of the year's work strengthened my faith in it. Each set of examination questions was, as it were, stamped with the approval of all the masters and of the Superintendent. It brought the schools more nearly to uniformity by improving the tone of the weaker ones. There was, however, one objection to it. It was sometimes difficult for some school to complete each month's work in just four weeks, owing perhaps to the sickness of a large number of scholars, or of the teacher; but with that system, the examination must occur at the appointed time.

I believe that a similar plan can be adopted without requiring every school, regardless of circumstances to come to a certain fixed point every four weeks. As recommended by the special committee appointed to consider the condition of our schools early in the year, the examinations for promotion can be given by the School Committee through the Superintendent, and thus be more official in their character. In most places the examination for the High School is conducted by the School Committee, and is the one of all, to which the scholars look forward as an important one. The scholars of the highest grade in a grammar school usually work hardest; the boys in a high school, intending to take a collegiate course, are usually the hardest workers in the school, and of these, those who are in the first class, and soonest to pass the ordeal of the examination, are the hardest workers of all. If nothing important hinges upon an examination, it does not act as a spur to the naturally indolent, but if promotion depends upon it, it is a great incentive.

Such examinations are designed to show to impartial, unbiassed judges, the fitness of applicants for the work before them. The standard which all our colleges are raising from time to time, is raising in just the same proportion the work of our high schools. If, however, every high school were to send to the university, whatever boys its teachers considered fitted, the university would not be able to maintain a high standing, and each high school would decline somewhat in character.

I sincerely hope that the influence of Wellesley and Smith Colleges is to be exerted upon all our New England high schools in the same way. In our grammar schools few teachers could stand the pressure that would be brought to bear on them, if the question of promotion depended on their judgment alone. It is just here that the School Board can cause its influence to be felt, by assuming the responsibility connected with this question of promotion. Every teacher for the purpose of strengthening her own judgment can give occasional examinations. Every master can examine his own district, but when the question of promotion is at stake, the examinations should come from the Board, who in this way can help the teachers, and at the same time examine the character of their work.

In visiting schools abroad, I was particularly struck with the marked influence exerted upon them, by the school authorities, who, in Germany, Austria, and England, where alone I had any opportunity of seeing school management, are in a certain sense government officials.

An important feature in English elementary education is the employment of highly educated men, appointed by the queen, on the recommendation of the Lords of the Committee of Council on Education, to be her Majesty's Inspectors of Schools. It is the duty of these men to visit all the schools under government patronage, to examine carefully into their condition, to inspect all registers, and especially to make a thorough examination of each scholar, to test his proficiency. The Blue Book report made to Parliament by the Committee of Council on Education, is mainly composed of the reports of the Inspectors; these consist of tabulated statistics, and careful statements as to the number of scholars examined, the number who have passed the required examination, the per cents obtained by the schools in the different studies, and the character of the work as revealed by these examinations, which are both oral and written.

They give definite, precise, valuable information. The inspectors examine a school till they know it thoroughly. Nothing is taken for granted. It is not assumed that a school is really doing well because it appears well upon a superficial examination : presumptive evidence is not the gauge by which they measure the school.

They have no hobbies, by which they measure it, nor are they prepared to condemn it, for some little unfortunate occurrence to which all are liable. Their business is to know the schools, and to report them as they know them. These reports are not couched in general terms of universal approval, based on general impressions, but they give the results obtained by their examinations, and from these results they show whether a school is improving from year to year, or retrograding. I learned from Dr. Rigg, of the London School Board, whose work entitled "National Education" has attracted considerable attention in America, that this thorough inspection was a most powerful agency in raising the character of the schools. With him I visited several of the London schools, both denominational and secular, all of them, however, under government patronage, and therefore subject to inspection. In conversation with the teachers I noticed especially the influence of these examinations.

I do not think that in this country, as such, the same system would be possible or advisable ; but that something akin to it, can and should be done in our cities and large towns, I believe most fully. In most of our cities, the examinations are given by the teachers only, and the papers rarely examined by others. The examinations, other than those of the teachers, consist mainly of hasty oral examinations given occasionally by a few of the gentlemen of a school board, or by a superintendent. The superintendents generally, I find, in the multiplicity of other duties connected with their office, have all too little time for the effective performance of this most important work.

If, however, a written examination is given occasionally, and the papers are sent to the office of the School Committee, it will be of little benefit unless the papers are then carefully examined, with reference to the scholarship of each class and to the uniformity and fairness of marking. No two teachers mark exactly alike, so that one scholar might receive a much higher mark than another, even though he had done no better. This matter ought to be most carefully attended to, in justice to the scholars. The influence of such an examination of the papers, when they are all brought together for inspection at the same time, is of the greatest value to the schools. But this thorough systematic examination of schools is not done to any extent, in this country, for the want of the time necessary for the preparation with sufficient care of the questions for an entire city, and for the examination of the returns.

I am of the same opinion that I expressed in my report of last year, that the work of school superintendents should be much more like that of the English Inspectors. It would bring them into a closer relationship with all the schools. It would furnish the occasion for most profitable teachers' meetings. It would make all feel that they were working in common, and would in my opinion have a great influence in raising the character of all our schools. The questions for such examinations would be most important, as indicating the character of the work required. Those questions, in arithmetic for example, are not the most beneficial, which aim merely to discover whether the teachers and scholars have done a little routine work, for they simply offer a premium upon dry, barren teaching of a few bare facts and principles, calling for husks rather than meat. Those questions, however, are valuable, which will necessitate such teaching as will awaken thought, arouse mental activity, and brighten a child's intellect. Our danger is the drifting into the mechanical and artificial, our aim should be the awakening of keen

clear thoughts. The children should have such training, that it need be a matter of no great moment what the phraseology of a question is, provided it be intelligible. The boy who can tell you what is the square root of 729, but cannot answer if you ask him what is one of its two equal factors, has not an intelligent idea of the meaning of the term square root, however correctly he may answer that question. It is simple injustice to the pupils to make them wait till they reach the last class in the grammar school before attempting to give them really intelligent ideas in arithmetic, as comparatively few ever finish the grammar school course, a course of instruction as complete in itself, and as important as is a high school or university course. The boy who cannot answer a question unless it is put in a stereotype way, has but a poor preparation for the questions which he must encounter in every day life, which will not be taken from a book.

If these questions for examination do not aim so much at discovering the intelligence of the work, as its mechanism, the mechanical will be made paramount, the intellectual subordinate; while a child's fitness for promotion depends on his intellectual growth mainly, with which must be combined a certain mechanical proficiency.

THE COURSE OF STUDY.

To prepare the way for such a system of examination, and to indicate with greater exactness what is to be made prominent in our course of study, I should recommend the laying out of that course with much greater exactness. The studies in some of the classes need a different arrangement, especially since the addition of the two branches of natural science in the Eighth and Ninth Classes. The programme of arithmetic can be altered from the lowest primary class through all the grades so as to bring forward the children more rapidly and more intelligently. Instead of attempting accuracy in each of the four fundamental rules successively they should all be taken along together,

as they are intimately related, and the practice from year to year will beget the requisite accuracy. In the Fourth Class, the children have not had sufficient experience in writing, for a valuable written examination in their Geography, but should rather be trained in the writing of occasional abstracts from their daily lessons, which will not affect their promotion. The examination in this should be carried forward into the Fifth Class, where geography can be taken as a careful study. The same is true of the Child's Book of Nature in the Fifth Class. The work in history needs to be laid out with definiteness. In the assignment at the masters' meetings of the monthly work during the past year, based on the general Course of Study prescribed by the Board, it was evident to all that various improvements might be made.

With the course of study laid out more minutely in all its parts, and so arranged that four examinations can be given upon it somewhat as follows, viz., in November upon the work of September and October; in February upon the work of November, December and January, in April upon the work of February and March, and in June upon the work of April and May, we should have examinations enough to test all the work; the per cents obtained, with the teacher's judgment will be sufficient data for deciding the fitness for promotion. Any teacher can, at any time, take the time of an ordinary recitation for a written examination, and the master can introduce his own examination from time to time. The papers returned to the office of the Committee can be kept there for a certain time for inspection, and then returned to parents so that all can know just what each child is doing.

CHANGE OF PROGRAMME.

To make room for the additional studies introduced into the Eighth and Ninth Classes, and to carry out the suggestion of my first report, a change in the daily programme was indicated in a general way, and upon this a pro-

gramme for the different classes was laid out by the Superintendent and Masters.

Five hours a day could not be further subdivided, as the time for each recitation had been reduced to a minimum. In this first report, I spoke of the evil of attempting to carry on so many studies at once, with daily recitations in each. Instead therefore of each of the studies, especially of the higher grades, receiving attention daily, each has its own time assigned to certain days of the week, occurring less frequently, but occupying more time at each recitation. The more difficult subjects receive an hour at a time, three times a week.

Time is also secured for some silent study in most of the rooms, which is quite as important as the recitation.

During the hour the children are not constantly reading, but a part of it is devoted to explanation and instruction by the teacher. It is easy to carry out this arrangement when there is a single class in a room; where the Eighth and Ninth Classes are in the same room, it can also be done by the master and head assistant dividing the work between them. A similar plan is adopted in the lower grades, modified as the difference in age and mental attainments makes it necessary.

By this arrangement the work can be carried out successfully, provided the children are not taxed too much out of school, either by amusements, late hours, or other matters of instruction. Much will depend on the force of the teacher, and the power to command the attention of the pupils. It is the possession of this force, and of the power to make an impression upon the scholars, whose thoughts are not allowed to wander, which gives German teaching its marked power. In my visits at the schools of Berlin, I noticed with great pleasure the business-like direct way with which the teachers imparted instruction, and "drove it home" to the mark. Every eye was on the teacher, every brain was busy, and at the close of a recitation teacher and scholars alike, had a pleasant sensation of something accomplished.

When a teacher can stand before a class without a book, conscious of being master of the subject under consideration, fearless of the questions of the keenest of his pupils, he can push forward the work, and make a progress in it, which would surprise the person, who must sit, with book in hand to refresh his own memory, or help *him* to do what the children must do without it.

Text books are excellent for the study and desk, but are not conducive to rapid independent work in a class, especially in geography, history, or arithmetic. There is a wonderful power in the eye of a teacher, where it can be fixed constantly upon the class.

If side issues are all kept in the background, during a recitation, and nothing allowed to come in to distract attention and so waste time, great progress can be made: in fact, with good attendance, so rapid progress ought to be made, that no scholar could be absent for a day without realizing his loss on his return.

PRIMARY SCHOOLS.

The work in the three lowest grades has been well done during the past year in most of the classes. In a few instances, owing to the sickness of the teachers, their work was done by substitutes, and as usual in such cases the classes fell behind. The methods of instruction are good, and these methods are in many cases accompanied by that force and earnestness on the teacher's part which is necessary to bring the classes successfully through the prescribed work. Our primary schools are by no means equally good. There is not one, however, which can be called a positively poor school. It is not necessary for me to individualize in a general report, as the reports of district committees speak of the different schools.

I examined each of the primary classes during the latter part of the summer term. In the First Class nearly every scholar read and spelled, and in the Second and Third Classes nearly every one was examined in reading, spelling

and number. The results of these examinations were unusually good in nearly all the schools, and the scholars showed themselves well prepared for promotion. The reading was intelligent, the spelling correct, and the number was recited promptly and accurately. The work in reading in this grade is the first in importance, but so easily do the children acquire it, that in every case the scholars were able to do more than the work prescribed by the Board. The First Class in every school completed the Primer in April, and during May and June read from the Second Reader. They also read from the Easy Book.

The Second and Third Classes completed their reading books before the end of the year, and spent considerable time upon the Nursery, reading at sight its interesting stories. In arithmetic the First Class is required to develop the idea of number as far as ten, and to combine groups of objects. This they do easily, during the latter half of the year. It is mere play for them when properly taught with objects alone. In the second year the work is entirely in addition and subtraction, no result to exceed one hundred. This work is both mental and oral with abstract and concrete numbers. We have aimed especially during the past year to break up the habit of dealing so entirely with the abstract, and to keep constantly before the pupil, by simple practical questions, the reason involved in all these simple processes.

Teachers who have a faculty of clothing their lessons with interest, find that the children can easily do the work assigned. Simple slate exercises accompany the oral work, care being taken not to require work upon the slate, which will involve principles not called for in oral work, as the reducing of tens to units in the cases of subtraction which involve the so-called borrowing of former times. During the third year, the work is to develop the idea of notation and numeration to one thousand, with the multiplication and division tables through the 12's, and slate work involving the same principles with both

abstract and concrete numbers. Roman numerals are also taught, in connection with the reading lessons.

The oral work in all the primary grades during the last year has consisted of regular lessons on form, color, objects, qualities and the human body. Occasional lessons have also been given by some of the teachers on animals, plants, and weight.

This work has been done much better and more systematically than before, and when properly managed is a most pleasing and profitable exercise. It is not designed to tax the pupil's memory, but ought to be so conducted, that instead of being irksome, it should be a source of delight to all the children.

The work in music, drawing and writing in these classes is generally very good. Under the supervision of competent teachers in these special departments, and with the willing co-operation of the regular teachers, this work is coming up to a higher standard every year. I think that the work now required of the children in these classes is such that the average scholar can and ought to do it well. The average age of the children in the lowest class who expect promotion is, at the beginning of the school year, considerably above six years. If all were to take the full grammar-school course, less perhaps might be done in these lowest grades, but as a majority of them do not complete that course, it follows that, while they are in school, every thing possible ought to be done for the development of their intelligence and reason. Parents who intend that their children shall remain in school during the thirteen years of our public-school course, sometimes feel that they are hurried. The lower classes, however, contain those whose school-life is to be short, and they should have the best possible opportunities. The teachers in these grades make the first and probably therefore the most lasting impressions on the great mass of the children. Our work as now laid out is very similar to that of the schools in the other cities of the state, with perhaps more reading

and oral instruction, and less work in number than in many places.

PRIMARY SCHOOLS IN BERLIN.

In visiting the schools in Berlin last summer, I was especially impressed with the work done in the primary schools, and with the rapidity with which the children were carried forward. At the Sophien Gymnasium, and at one of the principal Bürger Schule, I devoted considerable time to the primary classes. The teachers whose classes I visited, except in the female department of the Bürger Schule, were all men, even in these preparatory or primary classes. They invited me to select in each room what I would hear, and accordingly I called for reading, arithmetic, and number successively, in each of the three primary grades.

To say nothing of the wonderful attention given by the pupils, their rapidity in dealing with numbers, and the animation attending all the exercises, I will speak merely of the work as I saw it. The time per week in each grade was divided as follows among the four subjects taught, viz.: Religion four hours; German ten hours; number six hours; and writing four hours. During the first year the work in German consists in reading through a primer, a book about as difficult as our second reader, with conversational exercises upon what is read; also conversation upon oral instruction from picture cards, and the memorizing of little poems. The work in Religion is also essentially work on language. Bible stories are narrated, explanation given of all church festivals, such as Christmas, Easter, Ascension Day, &c., short prayers are taught, also a few verses from the Bible, and verses of poetry.

The work in number for the first year covers the four fundamental rules of arithmetic, as far as fifty, with the multiplication table as far as multiplying by six. In writing they are taught to make both the capital and small letters, singly, and in words from the reading book.

In the second year they use a higher grade of reader, with oral relation of the subject read. Poems are recited. The substantive, adjective and verb are taught. Rules of orthography are given with reference to the modification of vowels; the derivation of words is taught, and exercises in dictation and copying given. Bible stories are continued; church hymns learned and explained. In number the four fundamental rules are continued with numbers as high as a thousand; multiplication table completed.

In the third year exercises in reading are given with especial reference to the sense, mechanical fluency being by this time acquired. The matter read is required in oral recitations. Poems are recited. The simple sentence is taught with its composition, also declension, comparison, conjugation. The most common prepositions are taught; exercises in orthography continued, with especial reference to the irregularities. Bible stories are reviewed, and the work of instruction in religion continued according to Fürbringer's text book, the first chapter of which is committed, with an exposition; the Lord's Prayer, Church and Bible verses are committed.

In number, the four fundamental rules are continued with any numbers without limitation, and detailed instruction given in written arithmetic.

The scholars on entering this school are seven years old, about a year older than our lowest class, but in the three years they do as much in arithmetic and more in language, than our children do in five years. Drawing and music are not taught in these three elementary classes, but they are required to practise gymnastics two hours a week, in a gymnasium, under a regular instructor. In the above programme it will be seen that twenty-four hours of hard mental work are required of these little ones every week, besides the two hours of gymnastics, which instead of being child's play, as with us, is the beginning of that long hard drill which has made the Prussian soldier what he is.

With us, the child in the primary school, is on the school premises but twenty-five hours a week ; his time being so divided and so broken up, that the thought of weariness ought not to occur to him. In the German primary school, the teachers in the cities are generally men of liberal education, who have also spent years in training for their work. Some of the most cultivated teachers are found here. They hold the attention of their youngest children in a remarkable manner, and thus they accomplish this great amount of work. Constant unvarying attention produces rapid thought, and brings great results in a short time.

I do not however think that the course of instruction in their primary schools is so good as our own. If they were to adopt a course of study similar to ours, diversifying their work as we do, though they would not perhaps accomplish so much in arithmetic and language as at present they would show some remarkable results in these other subjects of instruction.

The children in our primary schools are held but a short time to one subject, and during that time are not held to it so closely that it need fatigue them, while the more difficult subjects are so interspersed with music, singing, light gymnastics, marching &c., &c., that it cannot possibly hurt them. I almost fear sometimes that, in our anxiety to smooth the way, we give them too little to grapple with, and that there is danger of dwarfing their mental development.

I looked with much interest to the results from the first examination of the present Fourth Class which was the highest primary class last summer, as considerably more work in oral instruction had been required, which some had thought would retard the other work. I was much pleased therefore to find it better than the work of the preceding year, showing that the scholars had not fallen behind in the "essentials" while attending to the oral work. The per cent obtained by this class was $81\frac{7}{10}$ in arithmetic, and $65\frac{2}{10}$ in language, which considering their

age, and the fact that this was their first written examination, was very creditable. The oral instruction instead of being onerous, is intended to make the school time pass more pleasantly, and to supplement that oral instruction of the higher sort which the children are ever receiving in a greater or less degree according to the intelligence of the family from which they come.

The drawing and writing books of this grade make a very commendable appearance, and the singing is good and constantly improving. These are under the supervision of the special teachers, who with the hearty co-operation of the regular teachers are laying a good foundation for higher and better work in the upper schools.

THE GRAMMAR SCHOOLS.

Few changes which need be mentioned have occurred. In the Pierce School, by promoting some of the best scholars of the Seventh Class to the Ninth, a sufficiently large Ninth Class was formed to occupy the first room by itself, and thus to enjoy the advantage of the teacher's whole time. That school has now reached the desirable point when it has one class only in a room. Figures plainly indicate that soon its accommodations will be too small for the large numbers that will seek admission. By doubly promoting at the Jackson School the same thing has been accomplished, and a fair-sized class given each teacher, some of them smaller than is desirable, but too large for any to be united. The small Fourth and Fifth Classes of the Lincoln School have been merged in the corresponding classes of the Bigelow School, and one of its primary classes has been merged in a class at the Underwood. So small is this school now that I think it might for the present at least be transferred with its teacher to the Underwood School, and the classes there arranged to occupy the four rooms. The schools at Oak Hill, which for the last year have had an average attendance of only 28.8 have been consolidated, and put under the instruction of the teacher of

the higher department, who by her great tact and energy, is carrying every thing before her, and the school is doing finely.

The Encyclopædias furnished these schools have proved a great acquisition. They are in reality a choice reference library, and are in good use, adding largely to the intelligence of all. Two good Chickering pianos, purchased at a remarkably low rate, have been furnished the Hyde and Jackson Schools respectively, which add much to the pleasure of both teachers and scholars, and to the efficient performance of the work in music.

I think that during the past year there has been a good state of feeling, a willingness to co-operate, to receive suggestions kindly, and to work in harmony. The influence of the masters has been apparent in the lower classes, where they can and do exert as important an influence as on the upper classes. With the aid of their head assistants, the masters can make themselves felt in every grade, and can attend to many a little matter so as to keep all things working smoothly and well.

From my own observation in visiting the rooms, and from the written examinations sent to my office all through last year, I should say that our schools are strongest in language, history, geography, drawing and music, weakest in arithmetic and reading. In the recent examination given by the Superintendent the classes stood as follows upon the different subjects of examination:—

NINTH CLASS.

Arithmetic 45.2	Language 77.1	History 60.8
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EIGHTH CLASS.

Arithmetic 48.4	Language 62.1	History 72.6
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SEVENTH CLASS.

Arithmetic 77.5	Language 65.	Geography 76.3
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SIXTH CLASS.

Arithmetic 73.8	Language 73.7	Geography 66.9
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FIFTH CLASS.

Arithmetic 63.6 Language 65.2 Geography 62.2

FOURTH CLASS.

Arithmetic 81.7 Language 65.2

The average in Arithmetic for all classes was 65., Language for all classes 68., History 66.7, Geography 68.4.

The general average for all the classes was 67.

The questions upon which the above per cents were obtained are herewith submitted.

Though they are not of so high a character as I could wish, they aim at discovering something of the intelligence of the work. The papers as a whole are much better than those sent to the office a year ago, in the intelligence of the answers. In penmanship they are about the same as then; with the attention which our writing teacher is now giving to this subject, I hope they will be much better in this respect next June. The answers to the questions in arithmetic show that the greatest difficulty of the pupils is their inability to apply principles, to new cases involving them. The more they are trained to understand principles, without of course, a waste of time or labored explanation of that which is above their comprehension, the better are they prepared for future work. One mistake at present is the effort to secure absolute accuracy in the performance of long abstract examples under each of the fundamental rules, before allowing the pupils to advance, and thus sustaining their interest, leaving to practice in the succeeding work to secure the desired accuracy.

The questions are as follows:—

EXAMINATION IN ARITHMETIC.

NO. I. — FOURTH CLASS.

1. Write in words the following numbers: 7020, 2009, 7648, 1001, 9203. Five 4's.

2. Write in figures: one thousand one hundred eighteen, seven thousand five, eight thousand sixty, two thousand one, six thousand two hundred eighteen. Five 4's.

3. Add 4956, 8728, 9764, 220, 202, 13, 47. 20.

4. In a schoolhouse containing six rooms, the whole number present one morning in each room was as follows: first room 37; second room 40; third room 42; fourth room 49; fifth room 53; sixth room 55. How many scholars were in the building? 20.

5. Add: Two hundred ninety-seven; five thousand eight; seven hundred one; seven thousand sixty-eight. 20.

NO. I. — FIFTH CLASS.

1. Add 17648, 2303426, 2728, 18957, 246349. 10.

2. From 19648 subtract 18756.

From 1864 subtract 1397.

From 74956 subtract 68967.

From 9417 subtract 3584.

From 10000 subtract 1875. Five 4's.

3. A common clock strikes 156 times every day. How many times does it strike in one year, or 365 days? 20.

4. How much will a baker receive for 48 pounds of crackers at 14 cents a pound, and 128 loaves of bread at 9 cents a loaf? 30.

5. An army of 97648 men has a tent for every 18 soldiers. How many tents are in the army? 20.

NO. I. — SIXTH CLASS.

1. Write and define an improper fraction; a mixed number; a proper fraction. Write a proper fraction whose denominator is 67; an improper fraction whose numerator is 37. Eight 4's.

2. Reduce $19\frac{3}{10}$, $16\frac{8}{9}$, $25\frac{13}{24}$, $46\frac{7}{18}$, $99\frac{27}{34}$. 20.

3. Reduce to their lowest terms $\frac{81}{243}$, $\frac{864}{984}$, $\frac{333}{696}$, $\frac{72}{81}$, $\frac{96}{144}$. 20.

4. In how many ways may a fraction be multiplied by a whole number? Illustrate. 2, 8.

5. If a city lot is worth \$3145, what is $\frac{9}{16}$ of it worth?
 Multiply $37\frac{4}{5}$ by $29\frac{2}{3}$. 9,9.

NO. I. — SEVENTH CLASS.

1. How many feet make a rod?
 How many square feet make a square rod?
 How many pints make a bushel?
 How many cubic inches make a cubic foot?
 How many cubic feet make a cord?
 How many quarts make a gallon?
 How many days make a leap year?
 How many shillings make a pound?
 How many cwt. make a ton?
 How many ounces of sugar make a pound? Ten 2's.
2. Write 3 E. \$2. 7 d. 5 c. 2 m. as it is usually written. 5.
3. At $\$3\frac{3}{4}$ a rod, what will it cost to dig a trench $\frac{1}{4}$ of a mile long?
 What will it cost to pave a court 10 ft. by 15 ft. at 50 cents a square foot? 15, 15.
4. How long must a pile of wood be which is 4 feet wide, 3 feet 6 inches high, to contain a cord?
 How high must a box be made to contain 24 cubic feet, the length of the box being 4 feet and its width 3 feet? 15, 15.
5. If 4 barrels of flour are worth \$36, how many yards of cloth worth \$3 a yard will two barrels of the flour buy? 15.

NO. I. — EIGHTH CLASS.

1. A merchant bought a cargo of flour for \$2173 $\frac{1}{2}$, and sold it for $\frac{22}{23}$ of the cost, thereby losing \$0.25 on a barrel. How many barrels of flour did he purchase? 20.
2. If a man travel $19\frac{1}{4}$ miles, going at the rate of $3\frac{7}{8}$ miles per hour, how many hours does he travel? 10, 10.
 Add $\frac{3}{5}$ of $\frac{25}{18}$ to $\frac{4}{9}$ of $\frac{27}{36}$.
3. Write the interest of \$1.00 at .06 for the following

times: 1 year; 10 months; 6 months; 1 month; 27 days; 15 days; 6 days; 2 hours; 2 minutes; 1 second.

Ten 2's.

4. What is the amount of \$765.48 from May 16, 1870, to July 4, 1876, at $7\frac{2}{3}$ per cent?

5. A loaned B \$25 at 6 per cent. On payment of the debt B found that he was owing A just \$50. How long had he had the use of the money? 20

NO. I. — NINTH CLASS.

1. Define Ratio, Proportion, Percentage, Base, Rate, Compound Proportion, Partnership, Involution, Index, Stocks. Ten 1's.

2. What is the ratio of 9 to 45? of 45 to 9? of 6 to 6? of $2\frac{1}{4}$ to $9\frac{4}{7}$? of 1 qt. to 1 bu.? of a cu. in. to a cu. ft.? of 1 day to a leap year? of 50 per cent to 1? of $37\frac{1}{2}$ per cent to 2? of a cord foot to a cord? Ten 2's.

3. How many bushels of barley at \$.80 in gold can be bought for \$385.56 currency, when gold is at $118\frac{1}{8}$ per cent?

$\frac{3}{7}$ of 28 is $\frac{4}{11}$ of how many per cent of 55? 10, 10.

4. If a man travels 280 miles in 7 days, travelling 10 hours each day, how many miles will he go in 12 days, travelling at the same rate, only 9 hours each day? 10.

5. Adams & Brown built a schooner. A. furnished \$8000, and B. \$1700 and 15000 feet of lumber. Her freights for the first year were \$1125, of which B.'s share was \$225; what was the price of his lumber per thousand feet? 20.

6. What must be the face of a note at 60 days, the proceeds of which when discounted at a bank at 6 per cent are \$100? 20.

EXAMINATION IN LANGUAGE.

NO. I. — FOURTH CLASS.

1. Good scholars study diligently. Which word is an adjective? Which word is an adverb? Which word is a noun? Which word is a verb? Four 5's.

2. Write an interrogative sentence containing an adjective, a verb, and a noun. Four 5's.

3. Tell why the following sentences are wrong: —

Do you go to school.

I do go to school? 10, 10.

4. Write a list of five nouns. Write a list of five verbs. Make five sentences with these words you have written. Fifteen 2's.

5. The hare runs (how?) ——— We shall go (where?) ——— We worked (when?) ——— Fill the blanks and tell what kind of words you use. 6, 4.

NO. I. — FIFTH CLASS.

1. Build up a sentence containing the eight parts of speech, using the words, "Dogs run." Eight 4's.

2. True, honest, and brave sailors saved the father, mother, and child from drowning. What kind of a sentence? Give the reason for the capital.

Is the verb transitive or intransitive? Why? Why does it end with a period? Give the rule for the commas after true and honest. Give the rule for the commas after father and mother. Seven 5's.

3. What is a descriptive adjective? Write five of them. What is a limiting adjective? Write five.

Two 5's and ten 1's.

4. Write the following address as it would appear on a letter, abbreviating as much as you can: Henry J. Smith, Doctor of Medicine, Washington, District of Columbia, United States. 5, 5, 3.

NO. I. — SIXTH CLASS.

1. Is this a sentence? What a beautiful day! Give the reason for your answer. 5, 5.

2. What must a sentence contain? Write a sentence containing only two words. 5, 5.

3. Write a sentence consisting of eight or ten words, containing only one subject and one predicate. Underline

the whole subject, and doubly underline the whole predicate. 5, 5.

4. How many parts of speech are there? Which two are most important? Why? Three 5's.

5. By what kind of words is a fuller meaning given to the noun? to the verb? Write a sentence to show this. Three 4's.

6. What are pronouns used for? Underline the pronouns: Mary promised to ask them to let her go with me. Three 3's.

*7. Write a composition of not less than eight lines, on "Thanksgiving Day." 34.

NO. I. — SEVENTH CLASS.

1. What is a phrase? Name the two kinds of phrases.

Write a sentence containing a phrase, and change the phrase to an adverb. Five 2's.

2. The wool of the sheep is clipped every year. Change the phrase to the adjective form of the noun.

Give the two rules for changing a noun to its adjective form, in both the singular and plural. Three 5's.

3. What is the meaning of an adverb formed from an adjective by the suffix *ly*? Are all words ending in *ly* adverbs? How can you tell? Three 5's.

4. What is meant by a noun in apposition? Write and properly punctuate a sentence containing a noun in apposition.

Combine into one sentence the following statements: —

Bryant wrote the *Thanatopsis*.

He is an American poet.

He is an illustrious poet. Three 5's.

5. By what part of speech is the meaning of almost all incomplete verbs completed? Write a sentence to show this. What one verb may take either a noun or an adjective to complete its meaning?

What is the adjective called that completes the meaning of this verb?

* One off for each error, for which the child should be held responsible.

Write a sentence containing an incomplete verb with three nouns as objects, and punctuate it carefully. Five 5's.

6. Write five sentences on the lion, employing the word lion in the first in its Subject use, in the second in its Adjective use, in the third in its Object use, in the fourth in its Explanatory use, and in the fifth in its Phrase use.

Five 2's.

7. What is the chief use of the relative pronoun? Write a sentence to show this. 5, 5.

NO. I. — EIGHTH CLASS.

1. What is a simple sentence? a compound sentence? a complex sentence? Three 5's.

2. Combine these two simple sentences, first into a complex sentence, then into a compound sentence: The wind blows. The trees bend. 5, 5.

3. The electric telegraph, which was invented by Prof. Morse, an American, has greatly facilitated business. Why is this *not* a simple sentence? Change it to one, and explain how it is done. Three 5's.

4. If a sentence contains several phrases, how should they be arranged? Combine the following statements into a simple sentence: —

We came to a spacious mansion of freestone.

The mansion was built in the Grecian style.

We did so after riding a short distance. 5, 5.

5. What is a clause? Like what parts of speech are clauses used? Underline the clauses in the following sentences, and tell like what parts of speech each is used: —

How he made his escape is a mystery.

They best can bear reproof, who merit praise.

The farmer declared that his watch had gained half an hour in the night.

When Greek meets Greek, then comes the tug of war.

Six 5's.

6. What is analysis? Analyze the following sentence:

When we passed the corners of the streets, we were always saluted by some beggars who were congregated there. 4, 16.

NO. I. — NINTH CLASS.

1. What is a simple sentence? a compound sentence? a complex sentence? Three 2's.

2. Combine these two simple sentences, first into a complex sentence, then into a compound sentence. The wind blows. The trees bend. 2, 2.

3. The electric telegraph, which was invented by Prof. Morse, an American, has greatly facilitated business. Why is this *not* a simple sentence? Change it to one, and explain how it is done. Three 2's.

4. If a sentence contains several phrases, how should they be arranged? Combine the following statements into a simple sentence: —

We came to a spacious mansion of freestone.

The mansion was built in the Grecian style.

We did so after riding a short distance. 3, 3.

5. What is a clause? Like what parts of speech are clauses used? Underline the clauses in the following sentences, and tell like what parts of speech each is used: —

How he made his escape is a mystery.

They best can bear reproof, who merit praise.

The farmer declared that his watch had gained half an hour in the night.

— When Greek meets Greek, then comes the tug of war.

Six 2's.

6. What is analysis? Analyze the following sentence:

When we passed the corners of the streets, we were always saluted by some beggars who were congregated there. 4, 12.

7. Analyze the eighth verse of "The Brook." 25.

8. Parse one noun, one verb, one preposition, one adjective, and one conjunction in this verse. Five 5's.

EXAMINATION IN HISTORY.

NO. I. — EIGHTH CLASS.

1. What changes have taken place in the surface of the Continent of North America?

Tell something of the elephant and mastodon once found here.

Give one reason why we may believe that men lived at the same time with these animals. Three 5's.

2. How do we know that the mound-builders did not live at the same time with the mammoths?

Is it probable that they were the ancestors of the American Indians?

How can we judge whence they came? Three 5's.

3. Why did the Europeans call the native Americans Indians?

Why were the Indians of a roving disposition?

Were they as strong as the Europeans?

In what did they excel them? Four 5's.

4. When did the Northmen probably first come to America? Explain how they probably came here. Did they make any permanent settlements? Three 2's.

5. How long was it before any more Europeans crossed the Atlantic? Where is Madeira? Iceland? the Azores? the Canary Islands? How did these strengthen Columbus's belief that he would find land by sailing west?

Four 2's and 6.

6. Describe briefly Columbus's first voyage, by answering these questions: When and from where did he sail? What land did he reach in a month? In what direction had he been sailing then? What land did he next reach? To what group of islands does it belong? What land did he next visit? Did he reach the main land on this voyage?

Seven 4's.

7. When was Plymouth Colony founded?

When was Massachusetts Colony founded? 1, 1.

NO. I. — NINTH CLASS.

1. Give the date of J. Q. Adams's administration.
 What internal improvements took place?
 Why did he fail of re-election? Four 2's.
2. What was nullification in South Carolina?
 How did it end?
 What two Indian wars occurred during Jackson's administration?
 The cause of each? Six 2's.
3. What two measures of Jackson's policy were supported by the election of Martin Van Buren? 4, 4.
4. What were the financial difficulties of Van Buren's administration? Why did he fail of re-election? 6, 6.
5. What measures of the Whig party did Tyler veto?
 What was the great political question which divided the Whigs and Democrats when Polk was elected? 4, 4.
6. What important war during Polk's administration?
 What territory did the United States acquire by this war? 4, 4.
7. Name the three parties and their candidates for the presidency at the close of Polk's administration. Six 2's.
8. What was the great political topic of Tyler's and of Fillmore's administrations?
 What were the five provisions of the "Omnibus Bill"? Six 3's.
9. What was the Kansas-Nebraska Bill? During whose administration was it brought forward? 3, 3.
10. Give an account of the John Brown affair. 8.

EXAMINATION IN GEOGRAPHY.

NO. I. — FIFTH CLASS.

1. What are volcanoes? 10.
2. What are the grand divisions on the Eastern Hemisphere?

What are the grand divisions on the Western Hemisphere? Five 2's.

3. How many oceans are there, and what are their names? Five 2's.

5. What ocean must be crossed in going from Asia to America? in going from America to Africa? 2, 2.

5. What seas, gulfs, and bays are made by the Atlantic? Eleven 2's.

7. What are the West Indies? 4.

8. Where are the Sandwich Islands?

Tell something about them. 5, 5.

9. Where are the Alleghany Mountains?

Give the names of different parts of them. 10, 10.

11. What is the monastery of St. Bernard? 10.

NO. I. — SIXTH CLASS.

1. What two motions has the earth, which affect its relations to the sun?

What is the axis of the earth? its orbit? Four 3's.

2. What is the time required for one rotation? for one revolution? 4, 4.

3. What are great circles? Name two small circles situated $23\frac{1}{2}^{\circ}$ from the equator. 5, 5.

4. How do we describe the exact position of a place on the globe? What is latitude? longitude? From what circle is latitude reckoned? What is the Prime Meridian? Four 4's.

5. What is the latitude of the North Pole?

What is the longitude of a place half way round the globe from the Prime Meridian? 2, 2.

What is an inland sea? a border sea? a gulf or bay? Three 4's.

7. Why are the tropics considered the boundaries of the Torrid Zone? 8.

8. How does vegetation vary on a high mountain in the Torrid Zone? 4, 4.

9. How many and what are the primary races of men?
How many and what are the secondary races? Six 2's.
10. How do savages live? How do civilized people live?
5, 5.

NO. I. — SEVENTH CLASS.

1. In what part of Europe are nearly all its mountains?
5.
2. In what part of Europe are its rivers largest? Why
is it so? 5, 5.
3. What country occupies all the eastern part of
Europe? What countries touch it on the west? 5, 10.
4. Name the bodies of water which surround Denmark.
Three 2's.
5. Bound France. Four 2's.
6. Name all the countries which touch the Baltic Sea,
giving the capital of each. Six 2's.
7. What and where is the capital of Italy? 5, 5.
8. Draw a map of the British Isles, with the names of
the principal bodies of water. 20.
9. What are the two principal streams of Scotland?
3, 3.
10. Which are the four great manufacturing cities of
England? Four 2's.

The reading in general is not yet what it ought to be, though improvement has been made. Brilliant displays of elocution are not, of course, to be expected from scholars in a grammar school, but earnest, distinct, appreciative and intelligent reading is attainable. If a scholar is trained to feel the sentiment of what he reads, he will generally express it, unless he stands in fear of a heavy fire of criticism from the class, which too often is his sole reward for an honest effort. Sensitive children under such a fire of criticism too often lose self-confidence, and have such a self-consciousness that they dare not and can not throw any life and animation into what they read. With a view to

correcting this by something entirely new and novel, George William Curtis's oration delivered at Concord last April, was put into the hands of the Eighth and Ninth Classes last summer. It had a good effect. In all our grammar grades I hope to see improvement in the work in reading, and that the pupils will acquire more of that naturalness which characterizes much of the reading in the primary grades.

Map-drawing has been a prominent feature in the work in geography. Some of the children have produced beautiful specimens of this work. I should, however, be much more gratified to see them able to go to the board and sketch rapidly, even though roughly, if it were done with tolerable accuracy, an outline of any country they had studied. Ability to do this, and to represent in the outline the prominent physical and political features is, I believe, the highest and best work which a class in geography can do, certainly it is the most practical, and a recitation from their own maps is more valuable than any other.

WRITING.

New life and interest have been imparted to the work in writing, through the energy and enthusiasm of Mrs. Bowler. The wisdom of appointing her especial teacher and supervisor of this work is already apparent. Though the teachers had gained one great element in the teaching of writing, the habit of rapidity, some schools had degenerated into carelessness both in movement and in form. The teacher of writing is aiming to correct this by requiring the same amount written with more care, accompanied by a careful analysis of the letters, and intelligent practice.

There has been a too prevalent feeling that the writing-book was a sort of specimen book, and that if it looked well, nothing more was necessary; whereas it is only a drill book in which to teach form, and the exercise book is merely for the practice of movement, while the results

are to be sought in the written exercises, examination papers, and general work of the scholar.

Good pen holding and good position, two difficult things to secure, have improved. In the primary classes an inducement is held out to the children by placing the names of successful scholars in a Red Book, which serves as a roll of honor, a distinction for which these little folks are very eager.

Specimen books have been provided for each class, where the improvement is to be exhibited from time to time. Spelling exercises and other work are to be put in these, in the best handwriting of the pupil, the time taken being occasionally recorded, and a mark placed on the page to show the correctness or faultiness of the position. Thus every child's work will be represented, and his improvement from time to time will be on exhibition. The children are working earnestly under this new plan, and it will certainly result in great improvement.

Two large classes numbering about fifty each have been formed in the High School, where instruction is given for two hours every Thursday. The scholars here too seem greatly interested.

DRAWING.

The following report on drawing was furnished me by Mrs. Bowler. As it covers the subject sufficiently, I publish it in full. I fully agree with its statements, and think that none too much time is allowed for drawing, but also fully believe that no teacher ought under any circumstances to exceed that time, even if more work should possibly be assigned than can be done in the prescribed time. The teacher of drawing will guard against the assignment of more work than can be done within the appointed time.

REPORT ON DRAWING.

The same general plan has been pursued in drawing the last year as formerly; and the drill obtained in the lower grades shows

more and more effectively. The work is more intelligent, and the labors of the teacher easier.

The tendency in some of the classes, to drag in the work for the sake of producing a very finely finished drawing, is to be deprecated. Broad work, done more quickly and intelligently, showing life in all of its parts, and comprehension of the drawing as a whole, is to be preferred, with more and varied practice, which will bring a good line and fine finish in time; in a word, with more *headwork* instead of so much mere *handwork*. Opposed to this, of course, is careless heedless work, which is equally to be discouraged.

The teachers' classes have been held as usual, except during the suspension in the winter months. This year, text-books have been placed in their hands, with the suggestion, that the time usually spent in the drawing-class be spent in the work at home, with an occasional distinct lesson to be held if necessary to inspect the work. At the close of the last school year, an examination of the teachers was held in freehand, memory, and dictation, most of the teachers obtaining certificates. At the close of the coming year, a similar examination will be held; also in model, geometrical, and perspective. Such of the teachers as pass the examination in all the branches are excused from further lessons in this department.

The teachers certainly appreciate the advantages Newton so kindly gives them, and reciprocate as earnestly as they are able. With few exceptions their work is well done.

At the beginning of the present school year, geometrical drawing with instruments was introduced into the four upper classes of the grammar-schools with the best results. The pupils are fond of the exercise, which, while it trains the eye and hand to accuracy, re-acts upon the character in many other ways. Geometrical, perspective, and model drawing are taught in the High School; model and cast drawing in outline and shade, together with applied design in outline and color. The pupils seem to be interested; and, since the study has been declared optional, but *seven* pupils have applied to be excused, and those *only* from original *designs*. Perhaps, in this connection, I may answer a question which is often asked, "Of what use is design to the pupil?"

First, to give him an idea of *true* design as compared with *false*, enabling him to be one of the many to improve the tone of

public sentiment with regard to our industrial art. *Second*, to encourage him to arrange forms himself with some degree of order and symmetry, and cultivate whatever taste he may have for invention, and independence of thought.

Lastly, to develop our *own home talent*, thereby keeping the thousands of dollars at home, that go abroad every year for foreign designs; and also to make a pleasing variety in the system of instruction in drawing.

The time given to drawing in the schools amounts in the aggregate to only twelve days out of the two hundred in the year given to school work, and certainly it is little enough. Probably design claims one-sixth of this time.

This year, the children in the lower grammar grades begin model-drawing; and it is very gratifying to state that it is very pleasing to them, and successful in results. At the close of the last school year an exhibition of our work was held in Boston and the honorary degree of "excellent" conferred. I hope that the present year may witness as good results.

EVENING SCHOOLS.

As but a few lessons have been given in the freehand evening classes, I can give only a few facts in relation to it. There are thirty-four pupils registered at Newtonville, and twenty-one at Newton Centre. Of this number, there are about twelve High School pupils, six are teachers in Newton, the remainder being citizens. All seem to be interested.

The pupils are classified; the largest class beginning the elements of model-drawing, others who are farther advanced are drawing from models in outline and in shade. Lessons will also be given in historical ornament and in design as time goes on.

MUSIC.

The time devoted to music in our schools in no way retards the other work. It is not an ornamental branch, but is designed to make the pupils independent readers, rather than mere mouth-pieces of what is put into them by ear. Neither the regular instructor in this department, nor the teachers who carry out his plans, devote their time to the accidents and adornments of music, but to the

essentials to its study as a science. M. Guizot, when Minister of Public Instruction, upon listening to some classes in music in Paris, is said to have remarked, "C'est très bien," and after a moment to have added, "C'est trop bien," showing that he detected in an apparently fine performance, a mere superficial polish. It is not the aim of our music teacher, however, to give showy results, but rather to lay a foundation broad enough to build a solid superstructure upon it. I herewith submit an especial report from himself, to the Superintendent, which gives a clear outline of the work as it is, and is in my opinion a fair statement of facts.

The time allotted to the study of music in the primary and grammar classes is limited to ten minutes each day, aside from the time occupied by the special teacher in his visits.

In arranging a programme of work, the question is not what we might wish to undertake, had we all the time that could profitably be spent in music, but what can be done with the greatest possible benefit during the brief portion of time allowed. To answer this question, we must select such items of instruction as are of most vital consequence to average pupils, and which most immediately subserve the purposes for which music is included in our curriculum of school studies.

These are: First, the æsthetic and moral effect which music is capable of producing, and which is so especially desirable during the formative period of childhood and youth. In order that this may be secured, it is indispensable, whatever else is done, that there be much actual singing from first to last, and singing of such words and music as are adapted to promote culture and to awaken and perpetuate the love of song.

Second, such elementary instruction as is necessary to carry forward improvement to a point where the exercise of song will fulfil its purpose in a higher degree, and the study of such facts and principles as most readily enable the pupil to read the musical page; presenting all instruction in a form progressive and easily comprehended.

In endeavoring to carry out these ideas, and adapt the teaching to the actual needs of our classes, many of the methods in

popular use need modification. We must come with great directness to our main work, or the time of the lesson is spent and nothing of value accomplished. We need also, as far as possible, to dispense with the dry and tedious technical exercises, and use for study, simple yet well-written songs, which may be analyzed by the pupil, and afterward sung with pleasure and benefit.

The voices of children should be treated with the most considerate care, so that their best qualities may be developed, and no permanent injury result from unwise use. The harsh, boisterous, overstrained tones sometimes heard will not be tolerated by any intelligent friend to the children, either as promotive of present culture or future vocal ability. During the present year, much persevering effort has been expended upon this point, and, in general, with more pleasing results than have been reached in previous years.

PROGRAMME OF STUDY.

CLASS I.

(First year in school.)

Learn to take the pitch *g*, entire class, and also each individual, with attention to tone, vowel, and articulation. Avoid chest tones, so called. Sing short musical phrases with words or syllables. Sing three sounds, five sounds of the scale, by syllables, commencing at the pitch above named; pictured representation of the scale upon the board, which individuals point and sing. The staff and a few of the musical characters are named and copied, and their practical use taught in exercises containing them. Take the pitch *g* with the syllable *mi* or *sol*, and sing in proper scale-order down to the keynote. Count time by two, three, and four. Scale extended, singing both above and below the keynote. Many little songs are sung by imitation with words, in good rhythm, tone and articulation. Some of these are repeated with the proper scale syllables, and memorized in order to form the association of syllables with relative pitch.

CLASS II.

Review of all preceding work and characters, which are to be copied on the slates. Other characters are named and copied as they are presented in the exercises. Take the pitch *g* with any

required syllable, and sing from it in scale order to the keynote. (This method in taking the pitch is followed in all the rooms without piano.) Learn to tell the key by the number of sharps or flats, and the place of *do* in seven keys, — C, G, D, F, B-flat, E-flat, and A-flat. Sing one or more songs in each key by words and syllables. Use books. Review songs previously sung, while learning to keep the place in the books. Sing the same by syllable, following the notes with the finger. Compare the places of notes in the book, with the proper scale upon the board, so as to find the right syllable. Cultivate confidence, and test progress, by individual recitation and singing. Use letters for nothing but naming the keys. Use numerals for nothing but counting time. Commence learning to sing syllables named or written in unexpected order. Sing all songs in good time and accent. (Through all grades, the velocity of the movement is accurately marked by length in inches of string attached to a vibrating ball.) Constant attention to tone and articulation.

CLASS III.

Continue study in following syllables or notes in the scale indicated in unexpected order. Learn to apply syllables to notes independently, with the speaking voice, or by writing them. Use the soprano only of two-part songs. Tell the key, and the place of *do* (the keynote), and learn at least two new songs in each of the nine keys, C, G, D, A, E, F, B-flat, E-flat, and A-flat. Name all characters employed in the studies. Tell the number of beats in the measure, and the length of each note and rest used in the songs. Learn to be governed by the teacher's beating, and sustain each note to its proper duration, and observe the rests. Individual work in applying syllables, explaining time, naming characters, and singing by words and syllables.

CLASS IV.

Review the soprano of the two-part songs sung in the previous year, and learn the alto of the same with syllables and words. (Through all succeeding grades, all the pupils read and sing the subordinate parts, as the very best of solfeggio practice.) Learn the easy chromatic intervals occurring in the songs, with proper change of syllable. Commence two-part singing, all pupils sing-

ing the parts in alternation. Easy sight-singing exercises upon the blackboard. Draw the diagram, showing staff, clef, signature, and place of the keynote in nine keys. Describe the beating of the time. Practise in variously filled measure on the slates. Learn new songs as time allows.

CLASS V.

Continue the practice of two-part singing. Voices of limited compass assigned to the part most congenial. Practise songs of greater difficulty. Constant attention to tone, articulation, and style of performance. Fluent use and application of syllables, training the eye to perceive readily the pitch relation of notes. Analysis of the time. Further practice of chromatic intervals. Letters of the lines and spaces through all the staff modifications of the nine keys. Commence writing scales, giving syllables and letters. Practise easy chords, and commence three-part exercises.

CLASS VI.

Three-part singing in nine keys. Examine voices, and assign them to part most suitable. Write scales in nine keys, giving syllables and letters. Intervals of the scale. The chromatic scale. All musical characters used in the studies named and copied. Review of analysis of time and melody. Sing minor exercises. Individual work throughout.

CLASSES VII., VIII., IX.

In the study of the upper classes, which, owing to their smaller size, are united in most schools for the practice of singing, all the preceding principles are reviewed as individual tests show the necessity therefor. More extended three and four part singing. Continue scale-writing, showing the semitones in each. Write the tonic, subdominant, and dominant-seventh chords in each key. The minor scale, harmonic and melodic forms. Boys with changed voices learn the bass staff. Alto boys learn to read tenor. Staff intervals, and the construction of chords, major and minor. Transpose melodies from key to key. Change measure from one variety to another. Correct false exercises. Practise in sight-singing in parts. Dissimilar movement, or easy fugue.

HIGH SCHOOL.

Three-quarters of an hour per week is spent in the musical exercises, which consist of practice in four-part songs for mixed voices, glees, English and German chorals, anthems, and choruses. The bass and tenor are here brought out distinctly, and the whole school is drilled together, the elementary instruction being mostly incidental; and the effort of the lesson is expended in bringing out the voices in true chorus manner, and in giving such general instruction in connection with the musical selections as the time will allow.

In carrying out the above programme, many modifications are necessary, to suit the varied arrangement of classes in the primary and grammar schools. As only one grade of instruction can be given in a room, some classes must be hurried and others retarded somewhat, according to the combination of classes in a room.

Attention should be called to the time of day when the ten minutes of song-study should be taken, in order that the best results may be attained. All experienced vocal instructors agree, that the nature of the effort required in singing demands an appropriate physical condition; and the time should be taken, if possible, when the pupils most nearly approximate to it. While much should be left to the judgment of the teachers in charge, it may be said that, in general, the ten minutes succeeding the devotional exercises will be the most favorable.

THE HIGH SCHOOL.

The report on the High School by the Chairman of the High School Committee, is so full that little needs be said here. With its enlarged accommodations, its greatly increased facilities for the study of the sciences, its added curriculum of study to meet the wants of a large class of young men who intend to enter neither university nor scientific school, but to enter at once upon mercantile life, it is complete in itself, and is fitted to satisfy all reasonable requirements. The work of this school is not primarily to fit for higher institutions, although that enters largely into its work, as it ought, to meet the wants of a

large part of this intelligent community, but it is equally designed to give as thorough and as practical a course of training, complete in itself, as can be imparted in three or four years by competent teachers, to earnest and interested pupils. Its facilities for the effective fulfilment of this important function are not surpassed, I believe, in any school of the kind. Every pupil who appreciates his opportunities, need not go forth from its walls at the end of his course of study, without that mental culture which can eventually fit him for high and responsible positions in life. Not one should graduate who is not possessed of an earnest spirit of improvement and growth, having in his hands the key of knowledge, and knowing where to apply that key to open rich stores in the coming years. This school can thus serve to maintain the high reputation of our city for intelligence and liberal culture, not alone through those who go to college, but through those who complete their school life within its walls.

The increased facilities for the study of chemistry, natural philosophy, and physiology, also of the study of mercantile subjects, aided as the latter is by practical interesting lectures from business men, do not however surpass the advantages afforded for the study of the English, Latin, Greek, German and French languages, the study of the mental sciences and of literature. But for all these departments many books are needed, and to the building up of a useful and adequate school library, by private contributions and by small annual appropriations of school funds, our attention should be turned. There are numerous books just such as are desirable, and the problem to be solved is, how to transfer these books to the shelves of our High School from the private libraries or the shelves of the bookseller.

SCHOOL SUPPLIES.

The supplies furnished through the Superintendent for the use of scholars, at the City's expense, for the year 1875, have cost the following amounts:—

Writing books	\$759.16
Pens	93.04
Blank drawing books	91.98
Crayons	36.08
Examination paper	216.20
Lead and slate pencils	238.48
Ink	52.85
Slates	4.20
Rubber	3.00
<hr/>	
Total	\$1,494.99

The cost per scholar, based on the average attendance for the year is63

Based on the average whole number it is58

This does not seem a large amount when the increased efficiency given to our schools is considered. All scholars are ready to begin a writing or drawing exercise the moment the hour arrives for the same. Pens and pencils are furnished only for these exercises, not for use at the children's desks at other times. All such supplies are kept by the teachers, being dealt out at the time of the exercise, and collected immediately after it.

The examination paper is a cheap quality of letter paper purchased in lots at a very low rate, and used only for written examinations, or for the writing of essays and letters. No new blackboard erasers have been purchased, the old ones having been re-covered at a small cost.

The vexatious delays causing much annoyance to the teachers and the trouble caused parents by the frequent asking for money for pens, pencils, paper, &c., are both saved by this method of furnishing supplies. All these supplies are purchased at wholesale price, and consequently cost much less than the expense would be to individuals purchasing at the retail price.

The books have been furnished as heretofore, the most economical method possible for the city, unless the free text book system be adopted. Doubtless few are really

aware of the advantages enjoyed by Newton in this respect. Books purchased through the Superintendent, in the name of the City of Newton, are procured at a reduction of $33\frac{1}{3}$ per cent from the ordinary retail price. These are sold to pupils at a slight advance to cover the expense of transportation of the books to the various parts of the city, so that they really cost pupils about 30 per cent less than the ordinary retail price. In Boston they are retailed to the pupils of the schools at about 20 per cent discount from retail price, so that the children of Newton procure their books about 10 per cent cheaper than the children of Boston, and 30 per cent cheaper than the pupils of most towns out of Boston.

I would respectfully refer the Board to my report of last year, as to the wisdom of requiring so much work of the teachers and Superintendent in the matter of furnishing these supplies, and also to the plan there suggested for simplifying the system without losing its advantages.

TEXT BOOKS.

Few changes in text books have been made during the past year, and only such as circumstances made necessary. Higginson's History of the United States has been put into the Eighth Class, and Guyot's New Intermediate Geography into the Sixth. Each class was about to purchase a new book, and these two books seemed very desirable. The geography has the double advantage of being complete in itself, and of having clear, intelligible maps, whereas the old book was one of a series; and as such contained only a bare outline, insufficient for a course of study on a subject so important, while its maps were confusing and indistinct. Monroe's Practical Speller has been put into the hands of the four lower classes of the grammar schools, and supplies a want long felt of a well-classified list of words in common use, such as the readers could not furnish. In the two upper grades, Hotze's Physiology and Physics have been introduced.

In the High School little change has been made, excepting the introduction of such books as were necessary for the Business Course of study.

EVENING DRAWING CLASSES.

The largest attendance of the class in Mechanical Drawing, at Newton Centre, last winter was 43

The least attendance was 11

The average attendance was 25

At Newtonville, the largest attendance was 23

The least attendance was 10

The average attendance was 17

These classes did good practical work under Mr. Andrews's instruction. His teaching was adapted to meet the wants of practical men.

The interest of the classes was well sustained, and the results were very satisfactory. Mr. Andrews's plan of work was so fully set forth in the report of last year, that nothing on that point remains to be said. His business arrangements prevented his making any engagement this season.

The Committee, however, are very fortunate in having secured the services of Mr. Otto Fuchs, formerly assistant professor of mechanical drawing at the Naval School, Annapolis, and now in charge of the same department at the Normal Art School, Boston.

Both the mechanical and freehand drawing classes are doing well under the direction of Mr. Fuchs, and Mrs. Bowler.

The following report on mechanical drawing is submitted, as showing the present plan of work and the composition of classes:—

The class at Newton Centre was opened at the Mason School-house on the evening of Nov. 10, and twenty-three persons admitted. The following Wednesday nine more joined, and now there are thirty-five names on the list.

The class at Newtonville was opened at the High School Building, Nov. 12, eighteen persons admitted, and five more added on the following Friday; making in all twenty-three.

OCCUPATIONS AND RANGE OF AGE OF SCHOLARS.

<i>Newton Centre.</i>			<i>Newtonville.</i>		
Occupation.	No. of scholars.	Range of age.	Occupation.	No. of scholars.	Range of age.
Carpenters,	18	16 to 50	Carpenters,	8	19 to 45
Machinists,	3	24 " 29	Machinists,	3	17 " 19
Engineers (civil),	3	17 " 29	Engineers,	3	17 " 20
Surveyor,	1	20	Draughtsman,	1	19
Bookkeeper,	1	20	Cabinet-maker,	1	19
Clerk,	1	25	Bookkeeper,	1	19
Students,	8	15 " 20	Clerk,	1	20
—	—	—	Students,	3	16 " 21
	35		No occupation,	2	19 " 20
				<hr/>	
				23	

The plan of instruction must of necessity be arranged to include all the branches in drawing required by the different occupations of the scholars. This is a rather difficult task, considering it must all be performed in the limited time of only one evening a week; but, by judicious and systematic arrangement, I hope to accomplish all that can be expected under existing circumstances.

I have divided the classes into two sections, I. and II.; the first containing all those who have had some instruction in drawing, and the second those who have not. The former is again subdivided into two branches, architectural and mechanical. The subjects for the architectural are, lectures with blackboard illustrations on building construction, architectural details, drawing of plans and elevations to scale from sketches on the blackboard.

Subjects for mechanical branch are, lectures on machine-construction, drawing of details of machinery from sketches on blackboard or copies. These details are drawn on a large scale in plan, elevation, and sections, and in due time are put together in one general plan of the machine, drawn to a smaller scale. Those who are far enough advanced in either branch may take

up special and more elaborate subjects, either copies or original designs.

The course for the second section consists of lectures and drawing of geometrical figures from sketches made on the blackboard, orthographic projection, and, as soon as practicable, drawing of simple details to scale, from blackboard drawings.

The course, as indicated above, I think is a practical one ; and, by choosing the subjects to meet the requirements of the different parties, their interest may be kept alive. The success of the school must of course depend largely upon the application and promptness of attendance of the scholars, which I trust will not be wanting, although the great distance which many of the scholars live from the schools may at times be a not entirely vague excuse for absence. I am very favorably impressed with the intelligent appearance of most of the scholars, and shall not fail to do my utmost to make the schools a success, and benefit to those who attend them.

Fully appreciating the readiness with which the Board voted me the privilege of prolonging my stay in Europe, after the opening of the fall session of our schools, I endeavored to render an equivalent by devoting as much time as possible to schools, to the examination of buildings and apparatus, to conversation with school officers, and to purchasing at low rate some useful apparatus, maps, globes and pictures for our schools.

In England, I made a hasty visit to its three principal foundation schools, viz. : Eton, Harrow and Rugby. At the latter, I spent a day with one of its principal teachers, from whom I learned much of the system of management and instruction in all these schools, receiving reports, and examination papers for subsequent study.

In London, I visited with Dr. Rigg various schools, and in conversation with him and other school officers I received much information upon English elementary education, not easily gained from ordinary educational reports. From him too I received pamphlets and reports upon the English educational system.

At South Kensington, I enjoyed especial facilities for inspecting the plan of work in the great art school, through letters of introduction kindly furnished me by Mr. Walter Smith.

In Berlin the chief officer in the educational department gave me every assistance for facilitating the inspection of the schools. From the teachers also I received every courtesy and opportunity for examination. I found them not only willing to enlighten me on any points upon which information was asked, but enthusiastic even in their explanations, and also in their inquiries as to the work in the United States, with which they seemed remarkably familiar.

In Berlin too I visited some of the celebrated stores where are to be found the finest maps in the world, and also the justly celebrated establishment of Ernst Schotte & Co., where I purchased beautiful globes and maps in relief, and various other fine globes. These were all purchased at the same discount that is allowed to the schools of Berlin.

At Dresden, by the aid of a letter from Mr. Elliot, I purchased at an extremely low rate several fine views of Greek and Roman antiquities, various classical views of statuary and historical subjects, views of ancient armor, and three very large pictures of the Roman Forum, the Colosseum, and St. Peter's. I find that all these pictures, with many others, were recently purchased for Harvard College. Their educational influence will be of great value to our High School.

At Vienna, through the kindness of Minister Orth, I was at once introduced to the Minister of Education. The schools were not in session, but by his assistance I gained access to any of the buildings which I chose to visit. The magnificence of some of these was surprising. Evidently no pains or expense had been spared by the government in erecting and so thoroughly equipping buildings, as to fit them in the highest degree for the

most intelligent and valuable instruction. From the Minister of Education, I received handsomely bound copies of the late educational reports of the Austrian Empire, as well as pamphlets explaining various matters in the educational system.

In Paris I visited some of the finest stores of educational supplies; among others the famous establishment of Hachette and Co. At this house I purchased a skeleton, a manikin, a set of forms to illustrate the principles of plane, solid and spherical geometry, and also a handsome chart of the entire metric system. These were also purchased at a low rate, through letters of introduction obtained from Sampson Low and Co., of London, to whom Mr. Emerson, my predecessor, had furnished me with an introduction from Messrs. Harper and Brothers.

In so hasty a survey of educational matters abroad, it was impossible to examine any thing very carefully. I could do little more than collect materials for future study, and acquire more definite impressions upon various points, than can be obtained from reading alone. While in many things the schools of Germany excel our own, and while we can learn much from them, our own system is better adapted to our own wants and more in harmony with our system of government. With such modifications as are in accordance with American ideas, I think our schools can become such, certainly in a wealthy and liberal city like our own, that we need not fear a comparison with those of other lands.

CENTENNIAL.

At the exposition in Philadelphia during the coming year, I hope that our schools will be able to make an honest and creditable exhibition, without any especial efforts which would give an unfair impression of our regular work, and would be worse than nothing. We can show results from written examination papers, and from exhibitions of regular work in drawing and music such as will stand a favorable comparison with other places. An idea of primary

work can also be given from the preparation by the children of their printing, writing, drawing, arithmetical tables, &c., which will be of interest, as illustrating the system. Our aim should be to give an exhibition of our system from the beginning to the end as it is, which will be of far greater interest than any forced work of remarkable excellence, which is not an exposition of work, but a display of the genius and aptitude of individuals.

In closing this report, I would express my thanks to the members of the City Council for their generous appropriations for the support of our schools, to the members of this Board for their courtesy and consideration, and to our teachers for their ready co-operation in the work in which we are engaged.

H. M. WILLARD, *Supt.*

STATISTICS.

Names of Teachers.	Department.	Class.	Whole No. of Pupils during the year.	Average Whole No.	Average Attendance.	No. of Pupils under 5.	No. of Pupils over 15.
<i>High School.</i>							
Francis A. Waterhouse	Master.		237	220.5	206.8	0	192
Ezra W. Sampson	Sub-Master.						
Sarah W. Fox	Assistant.						
C. Augusta Gile	"						
Carrie Spear	"						
M. Isabel Hanson	"						
A. E. A. Godefrin	French.						
Hulda Geist	German.						
A. Lawrence Bond	Substitute.						
<i>District No. 1.</i>							
David S. Farnham	Master.		763	632	569.5	1	8
<i>Muson School.</i>							
M. L. Searle	Head Assist.	9, 8					
O. M. Farnsworth	First Assist.	7					
M. L. Adams	Assistant.	6					
Martha S. Allen	"	5					
Isabel C. Patten	"	4					
Mary A. Rockwood	"	3					
Katherine K. Nicholson	"	2					
Charlotte McDaniels	"	1					
<i>Prospect School.</i>							
Martha L. Perkins	Head Assist.	9, 8					
Mattie M. Miller	First Assist.	7, 6					
Fannie M. King	Assistant.	5					
Mary P. Guilford	"	4					
M. Ella Hildreth	"	3, 2					
Ellena Thompson	"	1					
<i>Oak Hill School.</i>							
Mary E. Minter	Principal.	9, 8, 7					
Martha H. Jackson	Assistant.	5, 4, 3, 1					
<i>Hyle School.</i>							
Mary J. Fisher	Principal.						
Alotta E. Stearns	Assistant.	.					
<i>District No. 2.</i>							
Luther E. Leland	Master.		373	294	275	6	18
<i>Hamilton School.</i>							
Ellen M. Gifford	Head Assist.	9, 8					
Anna G. Swain	First Assist.	7, 6					
Lottie P. Harbach	Assistant.	5, 4					
Sarah E. Pratt	"	3, 2					
A. Josephine Clark	"	1					
<i>Williams School.</i>							
Elizabeth A. Pinnock	Head Assist.	9, 8					
Mary F. White	First Assist.	7, 6					
Mary Tenney	Assistant.	5					

Names of Teachers.	Department.	Class.	Whole No. of Pupils during the year.	Average Whole No.	Average Attendance.	No. of Pupils under 5.	No. of Pupils over 15.
Lucy E. Davis	Assistant.	4					
Lilla H. Shaw	"	3, 2					
Ann B. Smith	"	1					
<i>District No. 3.</i>			944	743.2	688.1	6	70
Levi F. Warren	Master.						
<i>Pierce School.</i>							
Sarah A. Warren	Head Assist.	9, 8					
Aroline B. Meek	First Assist.	7					
*Frances M. Parker	Assistant.	7, 6					
Eliza E. Simmons	"	6					
<i>Davis School.</i>							
Ella G. Bates	Principal.	5, 4					
Nellie J. Butler	Assistant.	3					
Susan E. Copeland	"	2					
Sarah E. Foster	"	1					
<i>Franklin School.</i>							
Emma J. Thompson	Principal.	5, 4					
Calista S. Wood	Assistant.	3					
Susan P. Richmond	"	2					
Clara H. Thompson	"	1					
<i>Adams School.</i>							
M. Abby Smith	Head Assist.	9, 8					
V. E. Hapgood	First Assist.	7					
Estella M. Haynes	Assistant.	4, 3					
Lydia A. Brierly	"	2, 1					
<i>Clafin School.</i>							
Adelaide Reed	Principal.	6					
Louise W. Stearns	Assistant.	5					
Mary R. Ware	"	4, 3					
Lizzie S. Flint	"	2, 1					
<i>District No. 4.</i>			837	705 8	631.9	0	16
H. Chapin Sawin	Master.						
<i>Bigelow School.</i>							
Angenette F. Tinkham	Head Assist.	9					
Eudora Sanford	First Assist.	8					
Martha M. Bakeman	Assistant.	7					
Annie E. Abrahams	"	6					
Esther E. Barry	"	5					
Lucy M. Loring	"	5					
Emma G. Bigelow }	"	4					
Mary H. Dwyer }							
<i>Lincoln School.</i>							
Alotta C. Wilmarth	"	3, 2, 1					
<i>Underwood School.</i>							
Helen M. Whiton	"	3					
Sarah E. Whittemore	"						

* Deceased.

Names of Teachers.	Department.	Class.	Whole No. of Pupils during the year.	Average Whole No.	Average Attendance.	No. of Pupils under 5.	No. of Pupils over 15.
Josephine W. Littlefield .	Assistant.	1					
Emma M. Cleary	"	1					
<i>Jackson School.</i>							
Alice Pitts	Principal.	6					
Lilla T. Wilder	Assistant.	5					
H. Augusta Millard . . .	"	4					
Sarah E. Hayes	"	3					
Ella M. Hotchkiss.	"	2					
Jeanette A. Grant	"	1					
Wm. S. Tilden	Music.						
Emma F. Bowler	Drawing.						

SALARIES.

Superintendent	\$3,000
Master of High School	3 0 0
Sub-Master " "	2,000
Assistants at High School	1,200
Grammar Masters	2,200
Head Assistants	800
First "	700
Principal Teacher at Hyde, Davis, Franklin, Jackson, and Claflin Schools	800
Principal of Oak Hill School	1,000
Assistants, maximum	650
" minumum	550
Teacher of Music	2,500
" Drawing and Writing	2,000

The following table gives the statistics of monthly attendance, and the aggregate attendance, for the school-year ending June, 1875.

SCHOOLS.	SEPTEMBER.			OCTOBER.			NOVEMBER.			DECEMBER.			JANUARY.			FEBRUARY.		
	Average Whole No.	Average Attendance.	Per cent Attendance.	Average Whole No.	Average Attendance.	Per cent Attendance.	Average Whole No.	Average Attendance.	Per cent Attendance.	Average Whole No.	Average Attendance.	Per cent Attendance.	Average Whole No.	Average Attendance.	Per cent Attendance.	Average Whole No.	Average Attendance.	Per cent Attendance.
Mason.	310.3	294.5	95.2	325.4	299.1	92.7	316.1	288.6	91.6	296	251.8	85.2	292.5	255.3	87	287.1	252.5	81.6
Prospect.	235.6	222.2	94.4	237.3	219.5	92.6	234.4	218.4	93.3	235.2	207.8	88.4	216	181.7	84.6	209.4	183.2	89.6
Hyde.	68.3	64.5	94.8	70.4	67.3	95.6	68.9	66.1	95.8	70.2	64.4	92	67.3	59.3	88.8	63.9	56.2	87.8
Oak Hill.	35.4	33.7	95.3	37.8	33.8	89.8	36.6	34	93.2	34.6	29.8	86.4	32.3	28.4	87.8	29.4	25.6	86.9
District No. 1.	649.6	614.9	94.9	670.9	619.7	92.6	656	605.1	93.4	636	553.8	87.1	608.1	524.7	87	589.8	517.5	86.4
Hamilton	124.4	119.7	96.6	120.2	114.7	95.5	119.7	110.7	92.8	114.9	108	94.4	114.5	103.1	91.1	107.7	99.3	92.6
Williams.	162.9	159.4	97.9	191.9	184.5	96.3	175.6	163.4	93.7	148.4	134.5	89.9	178.9	166.2	93	171.3	161.4	94.3
District No. 2.	287.3	279.1	97.2	312.1	299.2	95.9	295.3	274.1	93.2	263.3	242.5	92.1	293.4	269.3	92	279	260.7	93.4
Pierce.	153.9	148.7	96.8	155.3	147.1	94.6	160.2	151	94	157.2	143.6	91.6	159.9	146.2	91.9	157	145	92.9
Davis.	164.2	157.2	95.8	162.4	156.3	96.2	157.4	151.2	96	145.7	135.7	92.8	139.1	127.6	92	128.2	120	92.9
Franklin.	159.8	148.8	93.2	165.7	150.6	96.2	139.2	129.9	93.3	154.6	138.3	89.9	153.7	132.4	86.6	147.1	131.1	89.3
Adams.	140.4	132.11	95	146.8	138.7	94.5	144.8	137	94.7	134.8	120.9	89.9	140.9	129.4	91.7	137.1	125.7	91.5
Clafin.	127.5	118.2	92.7	136.4	126.7	93.8	133.1	123.5	92.9	135.8	120.5	88.7	135.7	119.6	88.1	132.3	118.4	89.3
District No. 3.	745.8	705	94.7	766.6	719.4	94	734.7	692.6	94.1	728.1	659	90.5	729.3	655.2	91.5	701.7	640.2	91.1
Bigelow.	253.1	244.1	96.4	261.1	250.2	95.9	297.1	281.1	94.8	247.2	218.1	88.4	229.3	207.7	90.5	247.3	227.5	92
Underwood.	139	131.8	94.7	145.2	134.2	92.6	148.2	139.8	94.3	136.4	106.8	78.2	109.2	83	75	123.7	107.6	86.3
Lincoln.	71.2	58.3	91.6	65.4	57.8	89.2	67.5	59.5	89.5	65.2	55.3	86	54.9	52	86.5	60	53.7	89.8
Jackson.	249.8	230.6	93.5	243.3	219.1	90	240	218	90.9	227.2	196.9	87.2	222.4	191	80.9	195.3	165.8	87.6
District No. 4.	713.1	664.8	94	715	661.3	91.9	752.8	698.4	91.8	676	571.1	84.5	615.8	533.7	84.6	626.3	554.6	88.4
High School.	216.3	210.7	97.1	225	218.6	97.1	225.7	218.4	96.8	227.3	212.6	93.5	221.5	206.5	93.2	221.5	206.5	93.2
Total.	2612.1	2474.5	95.5	2689.6	2548.2	94.3	2664.5	2488.6	93.5	2530.7	2239	88.5	2468.1	2189.4	89.6	2418.3	2179.5	90.5

The following table gives the statistics of monthly attendance, and the aggregate attendance, for the school-year ending June, 1875.

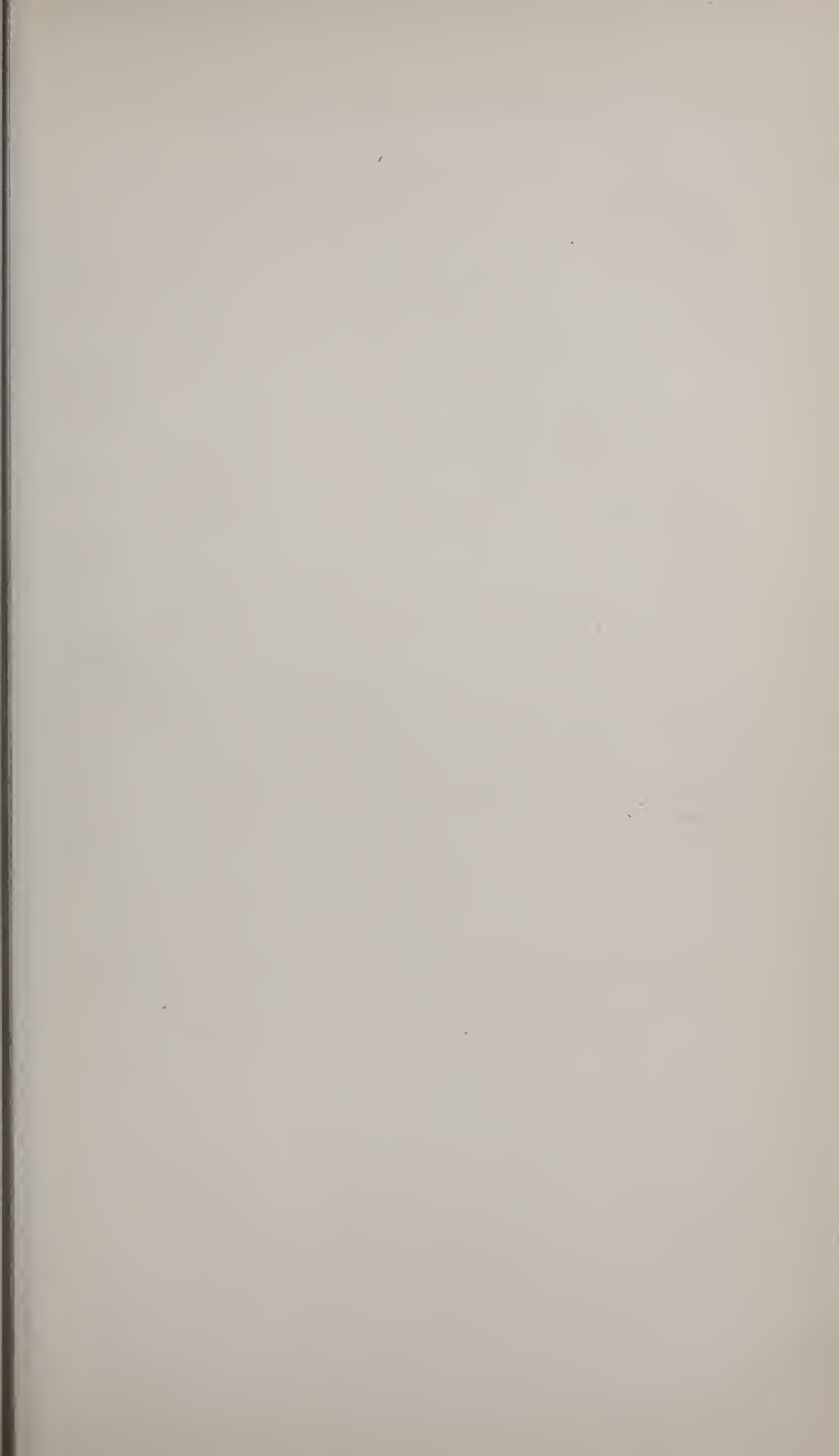
SCHOOLS.	MARCH.			APRIL.			MAY.			JUNE.			YEAR.	YEAR.
	Average Whole No.	Average Attendance.	Per cent Attendance.	Average Whole No.	Average Attendance.	Per cent Attendance.	Average Whole No.	Average Attendance.	Per cent Attendance.	Average Whole No.	Average Attendance.	Per cent Attendance.	YEAR.	YEAR.
Mason.	288.8	252.2	87.3	301.6	270.6	89.7	310.3	276.7	90.1	309.2	276.6	89.4	303.7	271.8
Prospect.	213.9	192.5	89.9	224.5	214.1	90.9	232.7	210.6	90.3	224.1	206	91.9	226.3	204.6
Hyde.	61.8	52.7	85.2	70.5	65.8	93.3	76.6	72.1	94.8	79.2	74.4	94	69.7	64.3
Oak Hill.	27.3	23.2	85.4	31.9	27.1	84.9	30.9	27.1	87.1	28.2	25.9	91.8	32.4	28.8
District No. 1.	591.8	520.6	87.9	628.5	567.6	90.3	650.5	586.5	90.5	640.7	582.9	91	632.2	569.3
Hamilton.	108.4	102.8	94.8	120.7	113.9	94.3	121.2	111.4	91.9	113.4	105.1	92.6	116.2	108.8
Williams.	146.5	132.1	90.1	187.4	176	93.9	196.1	182	92.8	184.8	174	94.1	174.4	163.4
District No. 2.	254.9	234.9	92.1	308.1	280.9	94.1	317.3	293.4	92.5	298.2	279.1	93.5	290.9	272.2
Pierce.	159	146.6	92.2	143.9	134.8	93.6	134.1	123.4	92.2	124.7	115.3	92.4	150.5	140.2
Davis.	136.8	131.4	96	170.8	162.2	94.9	186.3	173.8	93.1	175.3	164.8	94	166.6	148
Franklin.	136.2	119.3	87.6	166.7	145.3	92.6	162.9	147.7	91.1	166.4	151.4	90.9	154.2	139.5
Adams.	134.3	123.8	92.1	145.8	137	93.9	154.1	142.9	93.2	152.8	140.9	92.2	143.9	132.9
Clafin.	138.3	127.8	92.3	149.9	135.6	92.4	152.6	137.8	90.4	145.3	132.6	91.2	138.7	126.4
District No. 3.	704.6	648.9	92.1	767.1	717.9	93.5	790	725.6	92	764.5	705	92.2	743.2	686.9
Bigelow.	250.8	230.2	91.8	262.2	244	93	262.5	239.9	91.4	250.1	224.1	89.6	256.1	236.7
Underwood.	137.9	113.4	82.2	169.2	144.2	90.1	179	153.5	85.7	176.6	149.6	85.3	146.4	126.4
Lincoln.	60.6	50.9	83.9	33.4	30.1	90.1	25.6	22.5	87.8	25.8	23.8	92.6	53	46.4
Jackson.	202.8	179.2	88.3	226.5	202.3	89.3	229.8	204.1	88.8	224.3	199.5	89	226.1	200.6
District No. 4.	652.1	573.7	87.9	691.3	620.6	89.7	696.9	630	88.9	676.8	597	89.7	681.6	600.5
High School.	219.8	197.5	89.8	217.2	199.5	91.8	217.2	200.4	92.2	211	197.1	93.4	220.2	206.8
Total.	2423.2	2175.6	89.8	2612.2	2395.5	91.7	2671.9	2435.9	90.8	2591.2	2361.1	91.5	2568.2	2347.8

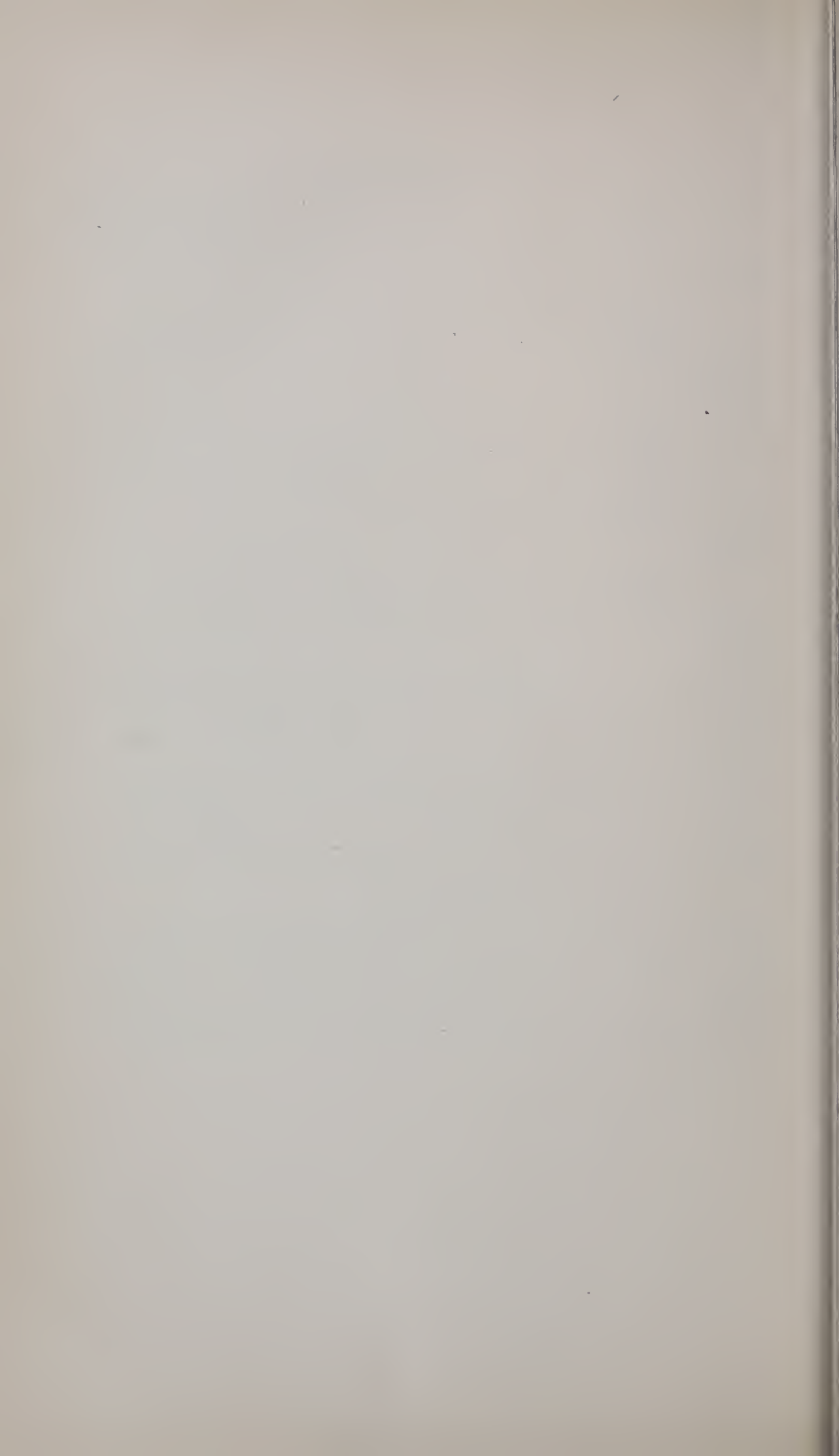
SCHOOL APPROPRIATIONS FOR 1875.

General appropriation for support of Schools	\$80,000.00	
Balance unexpended Dec. 31, 1874	2,036.06	
Received from the Dog Tax	1,185.60	
Tuition of non-resident Pupils	96 00	
	<hr/>	\$83,317.66
Amount paid to Superintendent and Teachers to Dec. 31, 1875	\$70,701.00	
Amount paid to Janitors	3,408.00	
Amount paid for Fuel	7,457.47	
	<hr/>	\$81,566.47
Balance unexpended Dec. 31, 1875		<hr/> \$1,751.19
Appropriation for Industrial Drawing	\$1,500.00	
Balance unexpended Dec. 31, 1874	388.31	
	<hr/>	\$1,888.31
Amount expended Dec. 31, 1875	\$932.68	
Amount transferred to School Incidentals	350.08	
	<hr/>	1,282 76
Balance unexpended Dec. 31, 1875		<hr/> \$605.55
Appropriation for School Incidentals	\$13,000.00	
Amount transferred from Industrial Drawing	350.08	
	<hr/>	\$13,350 08
Amount expended Dec. 31, 1875		<hr/> 13,350.08
Appropriation for conveyance of Pupils to the High School		\$1,000.00
Amount expended Dec. 31, 1875		800.00
Balance unexpended Dec. 31, 1875		<hr/> \$200.00
Appropriation for enlarging and furnishing of the High Schoolhouse . .		\$25,000.00
Amount expended		24,880.19
Balance unexpended		<hr/> \$119.81
Net balance unexpended Dec. 31, 1875		<hr/> \$2,676.55

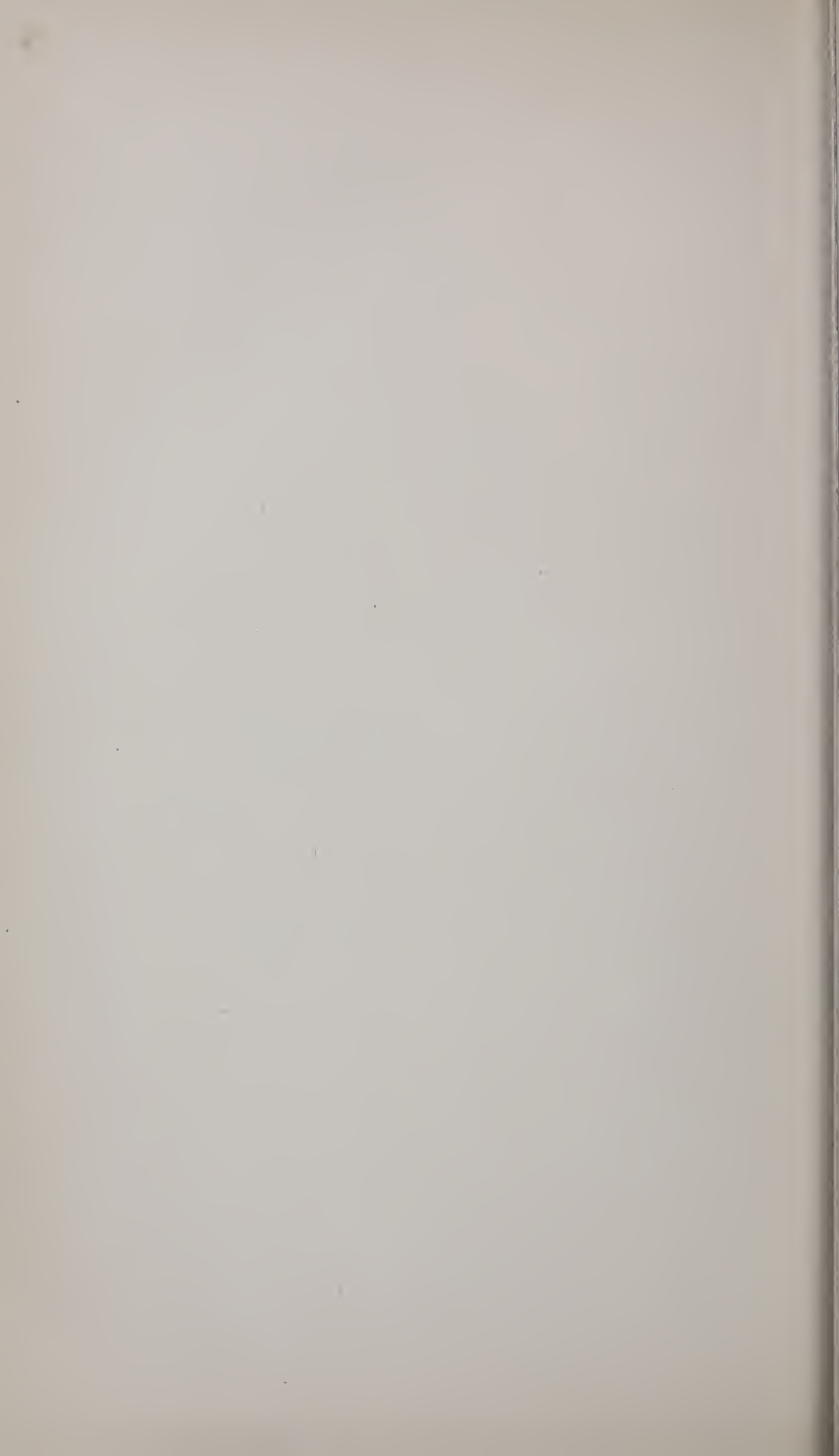
RECAPITULATION.

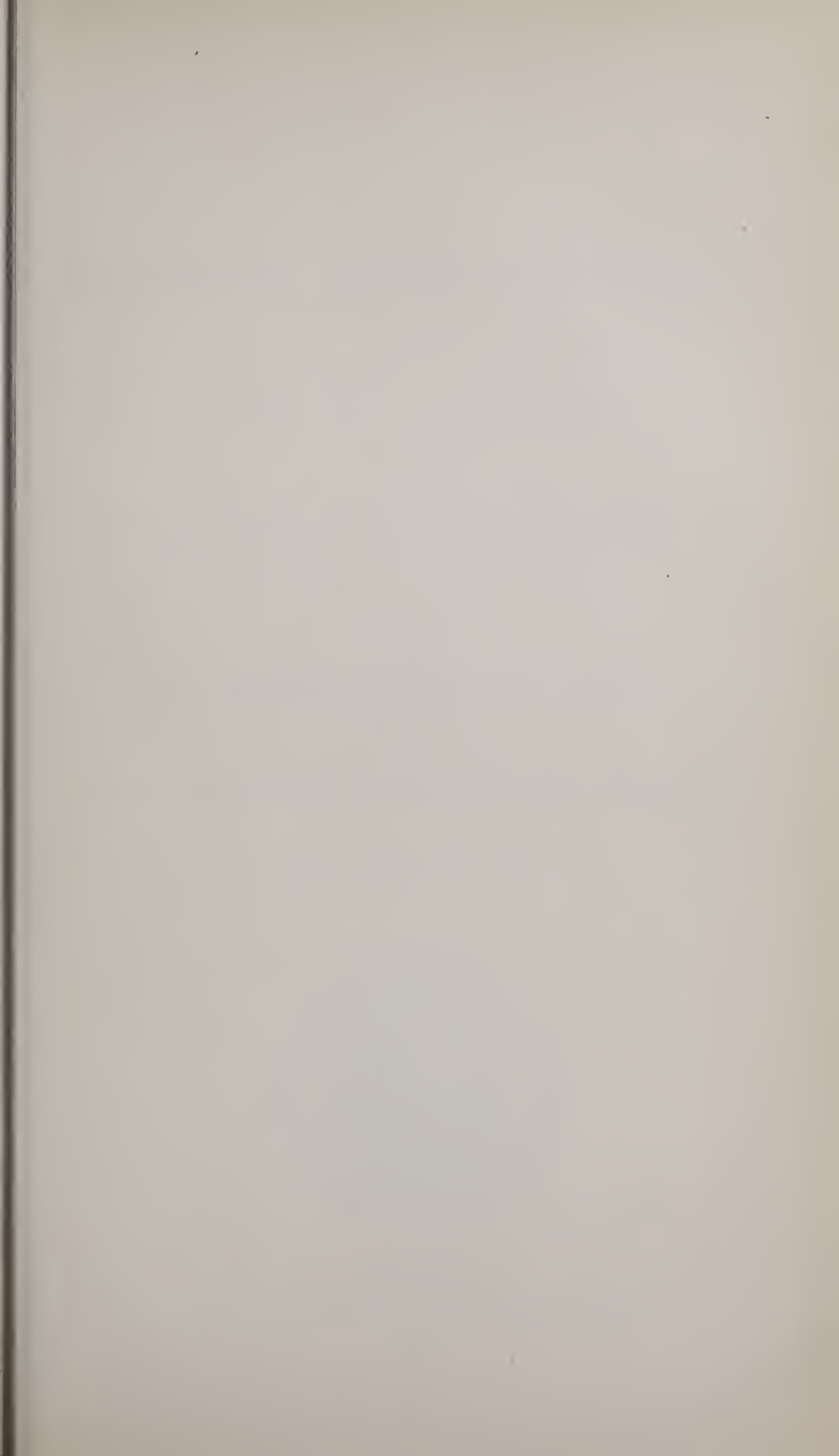
Expenditure for the support of Schools	\$82,409.15
Expenditure for School Incidentals	13,350.08
Expenditure for conveyance of Pupils to the High School	800 00
Expenditure for enlarging the High Schoolhouse	24,880.19
	<hr/>
Total expenditure for Educational purposes, for the year ending Dec. 31, 1875	\$121,529.42

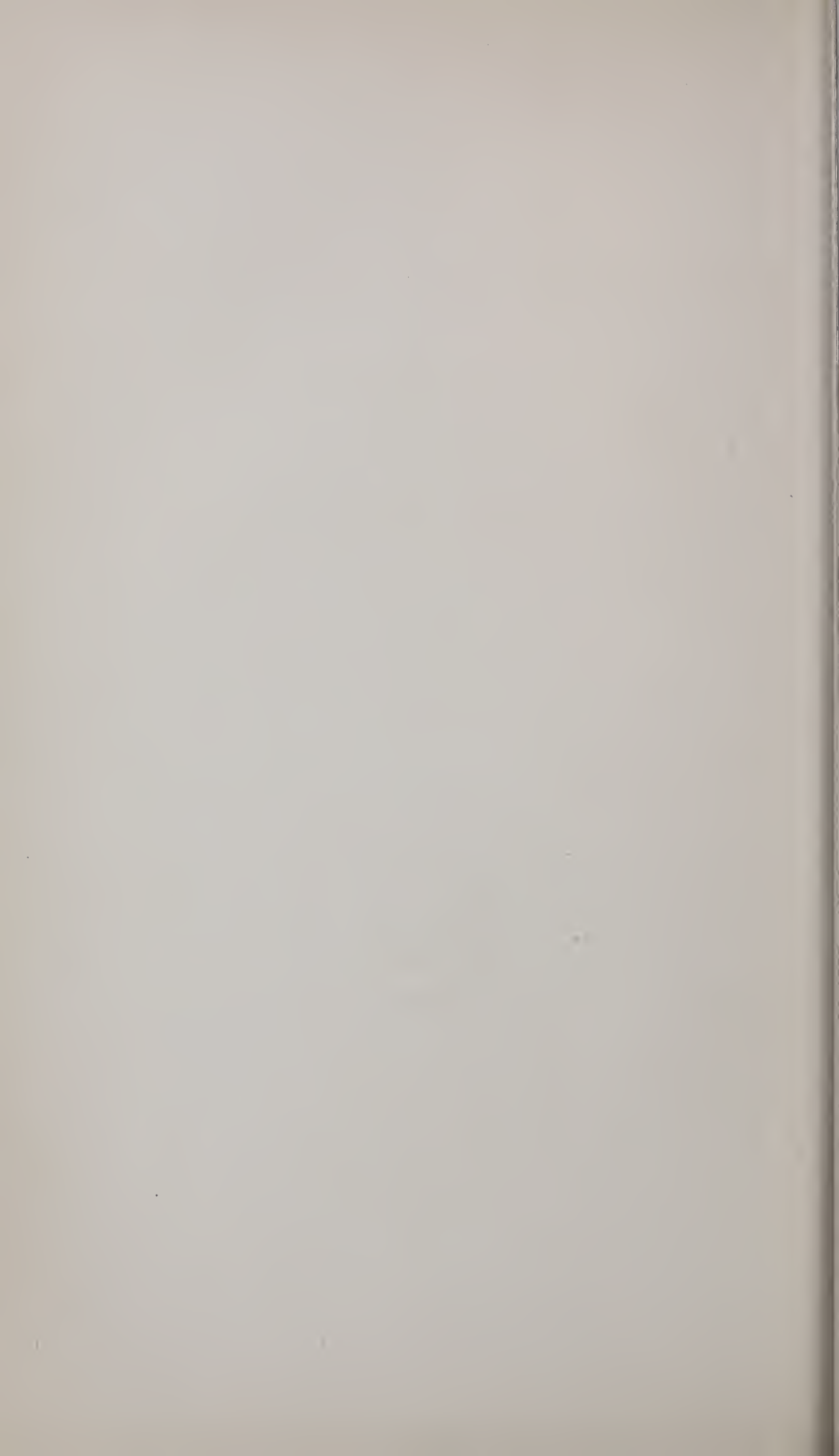












THE TRANSFER
OF THE
NEWTON FREE LIBRARY
TO THE
CITY OF NEWTON:

INCLUDING THE
ADDRESSES OF HON. J. WILEY EDMANDS, MAYOR SPEARE, HON.
JAMES F. C. HYDE, REV. B. K. PIERCE, D.D., JOHN S.
FARLOW, ESQ., AND GEORGE H. JONES, ESQ.,

ALSO THE
CITY ORDINANCE RELATING TO THE LIBRARY,
WITH THE
NAMES AND ORGANIZATION OF THE CITY BOARD OF TRUSTEES.

PUBLISHED BY ORDER OF THE CITY COUNCIL.



BOSTON:
FRANKLIN PRESS: RAND, AVERY, & CO.
1876.



CITY OF NEWTON.

CITY HALL, APRIL 15, 1876.

By a concurrent order of the City Council, the City Clerk was directed to request the several gentlemen who participated in the transfer of the Newton Free Library to the City, to furnish copies of their addresses on that occasion for publication, with the proceedings incident thereto. The request has been promptly complied with; and the addresses, with a brief compilation of the proceedings of the City Council in connection with the transfer and acceptance of the Library, is herewith

Respectfully submitted,

EDWIN O. CHILDS,

City Clerk.

PRESENTATION OF THE NEWTON FREE LIBRARY

TO THE

CITY OF NEWTON.

PRELIMINARY PROCEEDINGS.

THE following communication relating to the transfer of the Newton Free Library to the City of Newton was presented in the Board of Mayor and Aldermen, Nov. 15, 1875.

TO HON. J. F. C. HYDE, MAYOR OF THE CITY OF NEWTON, —
At an adjourned meeting of the Newton Free Library, held on the 3d inst., a vote was passed, empowering the Managers to tender the Library to the City.

The undersigned have been chosen by the Board, with full powers, to consummate the transfer of the franchise and property of the Corporation.

Pursuant to this vote, we have now to inform you that the Committee are prepared to communicate with the Board of Aldermen as to the steps to be taken to place the Library formally in the hands of the City Government; and we await their action regarding further proceedings.

Your obedient servants,

J. WILEY EDMANDS,	} <i>Committee.</i>
J. S. FARLOW,	
E. W. CONVERSE,	

NEWTON, Nov. 12, 1875.

Upon the receipt of this communication, the following order was adopted:—

IN BOARD OF MAYOR AND ALDERMEN,
Nov. 15, 1875.

Ordered, That the proposition of the Newton Free Library Association to make a free gift of their Library, with all its franchises, be referred to a Joint Special Committee of five, one of whom shall be the Mayor, one Alderman, and three from the Common Council.

In compliance with the foregoing order, the following-named gentlemen were constituted the Committee therein provided for,—his Honor the Mayor, and Alderman Pettee, with President Allen, and Messrs. Ward and Weed of the Common Council.

After due consideration of the subject, the Committee submitted the following order, which was adopted in concurrence by the two branches of the City Council:—

IN BOARD OF MAYOR AND ALDERMEN,
Dec. 20, 1875.

Ordered, That the City of Newton accepts the Newton Free Library as a gift to the City, upon the terms and conditions contained in the tender of the same by the Corporation, and that the City of Newton hereby assumes all the obligations and the conditions of trust attaching to the Institution.

Ordered, also, That a Joint Special Committee be appointed by the incoming City Council of 1876 to petition the Legislature for the necessary enactment as suggested in the opinion of the City Solicitor.

Soon after the organization of the new City Government for 1876, and in response to the foregoing order,

and the recommendation of his Honor Mayor Speare, the following-named gentlemen were designated as the committee to petition the legislature for the necessary enactment, — the Mayor, and Alderman Rice, and Councilmen Potter, Chester, and Goodrich.

In compliance with the petition of this Committee, the legislature promptly passed the following Act: —

[Chapter 18 : Acts, 1876.]

Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows : —

SECTION 1. — The Newton Free Library may grant, transfer, and convey to the City of Newton its franchise, library, and property, real and personal, for the establishment of a Public Library therein, to be forever maintained by said city.

SECT. 2. — All grants, donations, or bequests heretofore made to the said Newton Free Library, shall, by force of this Act, and of the transfer and conveyance hereby authorized, inure and pass to the City of Newton, for the use and benefit of the Public Library to be established and maintained therein as aforesaid.

SECT. 3. — This Act shall take effect upon its passage.

HOUSE OF REPRESENTATIVES, Feb. 24, 1876.

Passed to be enacted.

JOHN D. LONG, *Speaker*.

IN SENATE, Feb. 28, 1876.

Passed to be enacted.

GEORGE B. LORING, *President*.

Feb. 28, 1876.

Approved.

ALEXANDER H. RICE.

Upon the passage of this Act, the Board of Managers

officially notified the City Council of their readiness to complete the formal surrender of the Library to the city. The committee representing the City Government consisted of the following gentlemen,—Messrs. Gorham D. Gilman, James F. Edmands, J. Willard Rice, on the part of the Aldermen; and Messrs. Dwight Chester, Rufus Moulton, and William J. Towne, on the part of the Common Council.

This Committee thereupon proceeded to make arrangements for the formal reception of the Library by his Honor the Mayor, in behalf of the City, designating Thursday evening, March 16, 1876, for that purpose, the services to take place in the Library Hall. Both branches of the City Council, with the heads of Departments, Ex-Mayor Hyde, the clergy of the city, and other citizens, were invited to be present.

THE FORMAL TRANSFER OF THE LIBRARY TO THE CITY.

IN accordance with arrangements made by the Joint Special Committee of the City Council and the Trustees of the Newton Free Library, the formal transfer of the Library, with its building and other property, real and personal, from the care of its Board of Trustees to that of the City Government, was made on the evening of March 16, 1876. There were present his Honor Mayor Speare, and members of the Board of Aldermen, Common Council, and School Committee, with officers of the City Government, clergymen of the city, and others interested in the business which had called them together.

Hon. J. Wiley Edmands, President of the Board of Trustees, occupied the chair; and upon his invitation the services of the occasion were introduced with prayer by Rev. S. M. Freeland.

The title-deeds of the property, and the keys of the building, were then tendered to the city, through its chief magistrate, by Mr. Edmands, who made the transfer in the following appropriate words:—

ADDRESS OF MR. EDMANDS.

MR. MAYOR, AND GENTLEMEN OF THE CITY COUNCIL,—At the last annual meeting of the Newton Free Library Corporation, a vote was passed, authorizing the Managers to tender the Library as a gift to the city, and empowering them to make a transfer of its franchise and property, on the city's assuming the conditions of trust of its present organization. In accordance with that vote, the Library was offered to the city, and accepted by vote of the Board of Aldermen, passed Dec. 20, and by concurrent action of the Common Council, Dec. 22, 1875.

An Act having since passed the legislature, enabling the Managers to give up their official trust, and turn over the property, they now meet you for the purpose of putting the city of Newton in possession of all that belongs to the Newton Free Library Corporation, including the reading-room, with its magazines and journals.

Acting in behalf of the corporation, I now surrender to the City Government the keys of the building, and place in your hands, Mr. Mayor, the title-deeds of its real estate and personal property.

The institution is fully equipped for its work, and adequate to the needs of the time; and its building is capable, at a moderate cost, of such enlargement as the future may require. Balance of cash funds on

hand is \$2,764.39, which will be handed over to the City Treasurer.¹

This formal ceremony, Mr. Mayor, is the consummation of a business transaction of more interest than ordinarily attaches to such occasions. Although we follow the conventional routine which is customary when the city takes possession of a new building, the circumstances attending this acquisition are of infrequent occurrence. The occasion is an interesting one, not solely from its being a formal recognition of a gift to the public now being made, nor from the material value of the fine building, with its contents, which passes to the city. This public ceremony has more than ordinary significance, as marking the accession of an institution of a distinctive character in promoting the moral and intellectual culture of the community at large. A free library, in its relations to the public, performs an office peculiar to itself, and occupies a place which no other of the city's institutions can fill.

The occasion is not without much interest to those who have labored to make the Library what it is, whose feelings have been deeply enlisted in its welfare from its inception to the dissolution of its present organization.

A sense of the obligation which every man should feel to do what he can for the good of the community incited the movement which led to its establishment,

¹ The cash balance was increased \$58.53, collected for interest, making the amount turned over to the city treasurer \$2,822.92.

and secured the co-operation of many friends, who have given their money and their unselfish services to support it.

Its books have not been gathered at hap-hazard, to give fictitious importance to its catalogue by the numbers on its shelves, but have all been selected with much care and discrimination, making up an assortment of miscellaneous works equal, to say the least, in point of merit and profitable reading, to the average collections of our public libraries.

Early in the history of the Library, the enterprise lost the character of an experiment. Its ready appreciation by the community gave evidence that it had not been started too soon. It found friends to come to its support when money was needed to continue it; and its steady growth has confirmed the most sanguine hopes and expectations of those who joined in establishing it. They well knew, that, however fortunate they might be in pecuniary resources, the degree of popular favor which the Library should secure would constitute the measure of its usefulness. There has been no disappointment in this respect; and the rapid growth and present prosperous condition of the Library is due to its appreciation by the public.

During the past four years (those of its full operation), the number of books has increased over thirty per cent, and the circulation forty-one per cent; the number on the shelves at this time being 11,289.

Since the close of the official year, Sept. 30, when

the Annual Report of the Managers was published, its progress has been greater than at any former period. The circulation of the five months ending the first day of the present month is 32,298 volumes, being an excess of 11,862 over the same months of last year. This increase illustrates the growing disposition of the community to avail of the advantages of the Library, and is significant of what will, before long, be required, in enlarged accommodations, to meet the wants of our rapidly-increasing population.

A complete history of the origin, growth, management, and the present condition, of the Library, and detailed information regarding its working from year to year, will be found in the book which I now present to you, as one which may be useful for reference hereafter.

A free city library is an important adjunct in the educational system. Newton has spared no pains or expense on its schools; and the acquisition of a free library is one step further in the direction of educating the community. The library, in its formative influences, is to the community at large what the school is to the young; each contributing, in its own sphere, to the improvement of society.

It is the province of the school to train the young mind through systematic study, and to discipline it, so that it may retain and assimilate the knowledge acquired. School education is to be considered as a means to an end, — so to improve the faculties of the

young, that they may be fitted by disposition and ability to improve the opportunities for usefulness in after-life. The true end of school instruction is self-education, and the library co-operates to that end, taking up the young at the point where school instruction leaves them. The seeds of knowledge planted in the school, and germinating in after-years, often acquire their fullest growth and productiveness under the favoring influences of the library. It furnishes the means of self-improvement to all, indiscriminately, — the old and young, the rich and poor, the men and women.

That school instruction which does not develop and result in a desire for self-improvement falls far short of the highest purpose of education. That scheme of popular education is the most perfect, which treats the individual as the subject of educational influences through life, and prepares him to take advantage of the facilities offered for continued mental development. When you give free access to the stores of knowledge gathered in the library, you do much towards utilizing school instruction; and it is through these available means and facilities for self-improvement, that you secure the full fruition of popular education.

In view of the high rank which a city free library holds at the present day in popular estimation everywhere, your adoption of this institution is of no slight consideration, as adding to the attractions and to the

importance of Newton ; and it will be long before any municipal act will appear on our city's records, more conducive to its prosperity. A free library is fraught with practical consequences affecting our community for the present and the future. It is an important auxiliary to the teacher in furnishing the scholars with the books which he may recommend as relating to the subject of their studies. It is the source of information to the special student and the general reader, giving to all who resort to it — whether for general knowledge, or to indulge in the beauties of literature — a higher estimate of their privileges, a stronger attachment to the locality where these opportunities are found, and an increased interest in the welfare of the community. Through books, the learned men who have impressed their thoughts on the minds of past generations continue to reign in the realms of literature. The printed book is a mirror of the past ; and the genius and learning of ancient and modern authors are now as open to the multitudes as were ever the lectures of Socrates and Plato to the few who listened to their teachings.

A free city library has an element of strength and permanency in the knowledge which every citizen, educated or uneducated, has, that no restraints upon the circulation of its books can be made, and that its privileges and benefits are assured to all classes. It is to be supposed that the ownership of our Library by the city will secure for it an abiding popular

interest, surpassing in kind and degree that which a private or corporate association can feel sure of holding for the long future.

In severing their relations with the Library, the members of the corporation are parting with a cherished object, and are naturally sensitive to any supposed risks incident to a change in its control, from their knowledge of the care and attention it has hitherto required. They indulge in a feeling of satisfaction in contemplating their work in building up an institution worthy of the city's adoption, and they will feel a deep interest in all that attends its course hereafter, ever solicitous for its prosperity and usefulness.

If it were proper now to make any allusion to the causes of the past success of the Library, there is one prominent among the others, which might be considered pertinent to the occasion, in view of its importance as a precedent. I refer to the policy, established at its commencement, of keeping the Library free from all extraneous influences; and the action of all connected with it has been ever true to this policy. In the election of officers, in its appointments and its management, no sectional, political, or denominational bias or partialities have influenced its course at any time. We have no concern regarding this for the immediate future. All that has transpired in connection with your reception of the Library evinces your appreciation of it in all its bearings; and we trust there will be no divergence of views on this point by your successors

in office in the length of years, to jeopardize its welfare, and possibly its continuance.

The Managers now resign their trust, with its responsibilities, to you, with full confidence in the growth and increasing usefulness of the institution under the city's control; and they doubt not, that the consideration which it will receive in your hands will be commensurate with its benefits to the people, and its importance to the city. Edward Everett once said, when speaking of the schools, "A school is not a machine, to be wound up like a clock, and then left to take care of itself;" and this is applicable to the Library, which requires, not only constant attention and care, but the wherewithal to keep it in proper working condition. Its collection must be kept fresh by continued accessions. A library, like a plant, will soon pine, without adequate nourishment. When its supply of new books fails, it ceases to grow; and cessation of growth is the beginning of decay.

Under the fostering care of the City Government, the Library will maintain a vigorous and prolific growth, amply remunerating for all that is bestowed upon it. Let us hope that this care will not be diminished by any cause, until the Newton Free Library shall, by its ennobling influences, secure the interest of every citizen, and become the most valued of our city institutions.

The important trust conveyed in the preceding address of Mr. Edmands was accepted, in behalf of the City, in the following

RESPONSE OF MAYOR SPEARE.

MR. PRESIDENT AND GENTLEMEN, TRUSTEES OF THE NEWTON FREE LIBRARY, — You have placed in my hand a deed which conveys to the city of Newton your “franchise, library, and property, real and personal, for the establishment of a public library therein, to be forever maintained by the said city,” in accordance with authority given the Newton Free Library by the legislature of our Commonwealth. You have also given me the keys to the main entrance of the building, thus opening to the City Council all its opportunities and responsibilities.

The city of Newton gratefully accepts this most princely gift which it has ever been the good fortune of any city in the Commonwealth to have received.

We accept not only this beautiful and substantial building, — fitly representing the lasting remembrance in which you and your associates will be held by the citizens of Newton in all coming time, — but also the results of ten years of earnest thought and honest labor. All this you have freely given, asking, expecting, and receiving no other reward than a consciousness that you have tried to use properly the talents God has given you, whether those talents have been the money you have contributed, or days and nights devoted to the advancement of the interests of the Library.

Newton accepts this, another, its last, its best school-

house, — a schoolhouse which shall furnish opportunities for culture to all its inhabitants, from the pupil in our primary schools to the graduate of the highest university of this or any land.

If our children are properly instructed at home and in our public schools, the desire is aroused for a wider range of knowledge and breadth of culture, which libraries alone can supply.

There are over eleven thousand carefully selected volumes in this library, — about one-third as many as there are in the circulating department of the Boston Free Library, exclusive of its branches, and three times as many, in proportion to the number of inhabitants to be accommodated. You also have attained an average weekly circulation of over eleven hundred volumes; and, through agencies established in the various wards, the books are easily accessible to all our citizens.

Can we too highly appreciate our public libraries, containing the priceless treasures of recorded knowledge, wit, fancy, and wisdom of the past and present, in all departments of literature, accessible to ALL? And in whatever line of thought or avocation we desire further improvement, we here find it, ready at our hand, "without money, and without price."

Are there any who question the usefulness of such an institution, or who doubt the propriety of its acceptance by the city of Newton? Is there a citizen who would not have felt humbled and chagrined, if the

City Council had refused to receive it, or if we should not cherish it with our best and most vigilant care? We believe not ONE. On the contrary, as the magnitude of this gift shall come to be fully appreciated by the citizens, so will the desire to foster and care for it be increased.

The citizens of Newton never have been parsimonious, and assume with pleasure the burden which you and your associates have thus far cheerfully borne. The benefits are for all ; and they all demand the privilege of alike bearing their proportion of the responsibility, and sharing the honor, of its continued support.

An enlightened City Council will now take up the work, where you leave it, through its appointed agencies, and, profiting by your experience and the cooperation which we know you will cheerfully give, strive not only to maintain, but, if possible, to increase, the usefulness of its own FREE PUBLIC LIBRARY.

We trust our fellow-citizens will not forget that the measure of the advantages to be derived from it will depend on the manner in which these books are selected and used by them.

Among those who shared the responsibility, pecuniarily and personally, in the establishing of this Library, was our lamented friend and fellow-citizen, David B. Jewett, one of your trustees at the time of his departure from his labors here to their reward in the hereafter, and who will long be held in grateful remembrance.

He left to this Library a legacy of five thousand

dollars ; and only the income from it, we trust, will be expended in needed additions to the Library, the principal forever remaining a monument of his wisdom and benevolence, and a lasting incentive to others to do likewise.

But, sir, a small book, containing the history of your doings up to this time, reminds me that deeds, not words, have characterized your proceedings ; and, while it would be gratifying to call to mind the more minute history of the inception and progress of this enterprise, we will not detain you with them, but leave this honor for those who can better perform that duty.

Sir, the munificent contributions made by you, of more than one-fourth of the amount expended in the erection of this building and the maintenance of the Library to the present time, were coupled with important details of organization and conditions, the wisdom of which is thus early apparent. One of those conditions was, that it should be called "The Newton Free Library ;" another, that the building should be of enduring material, brick or stone. May the influence of your noble example, and the usefulness of this Library, be as lasting as the rocks that compose this structure !

May God in his goodness grant to us, and those who shall fill our places hereafter, the wisdom, knowledge, and virtue which shall enable us to forever here maintain this "the crown of our republican system of popular education," and that it may do its full part in bearing up and sustaining a well compacted and im-

perishable fabric of freedom, — of that freedom which rests upon intelligence, which must be regulated by law, and which can only be maintained by piety, philanthropy, and patriotism ! ”

Upon assuming the chair, at the conclusion of his address, Mayor Speare continued, —

Mr. President, we have to ask through you that the present organization shall retain their respective positions and duties until the City Council shall have fully completed the necessary ordinances, and appointed the Trustees therein provided for, and they shall be ready to assume the responsibility.

Gentlemen, we are favored with the presence of the one who first had the honor of suggesting that which we to-night have had the pleasure of consummating. I need not introduce to you, but I have the honor of presenting to you, the Hon James F. C. Hyde.

ADDRESS OF EX-MAYOR HYDE.

MR. MAYOR, — It gives me pleasure to be present to-night to witness the consummation of a thing so desirable as the formal transfer of this Library to the city. I had the honor to suggest, in my address last year, that such an arrangement would be a wise and proper thing, and expressed the hope that measures might be taken to place this Library in the charge and under the direction of the city.

Before the year closed, some action was taken in this

direction. His Honor, the mayor, my successor, approving the measure warmly, seconded the suggestion previously made; and, soon after the inauguration of the new government, votes were passed concerning the matter, and application was made to the General Court, and the necessary authority obtained; and we are here to-night to witness the formal and legal transfer of all the property of the Newton Free Library, as a free gift, to the city of Newton, subject only to such proper provisions as the nature of the gift demands. Henceforth, these doors are to swing open widely and freely to all, — as well to him who pays but two dollars tax as to him who pays two thousand. Here rich and poor, young and old, all, from every part of the city, may come and enjoy the advantage of the thousands of volumes that fill these shelves. In the long roll of years yet uncounted, who can tell what blessings may come to this and succeeding generations from a wise and proper use of these books? No city or town, so far as I now remember, has ever received such a *princely* gift. Some cities have had a sum pledged, if the city would raise an equal amount; but here *all* is freely given. A large, convenient, and most substantial building, well adapted to the uses for which it was designed, with more than eleven thousand volumes, selected with the greatest care by those who inaugurated this noble enterprise, are now to be transferred to the city as a free gift.

The question has recently been asked, How, consist-

ently with my views of economy, I could recommend and justify such a yearly expenditure as will be required for the support of this Library and its surroundings, and thus lay an additional burden upon the *poor* tax-payer. Can it be a burden or a hardship to him who pays a tax of two or five dollars a year, only two or five cents of which would be his portion contributed yearly to this Library, while it may be this same tax-payer has a family of five, six, or ten children, each of whom would be entitled to, and might take, each a book a day, making an aggregate of thirty books a week for the smallest family named, if they could find time to read as many?

Certainly one might as well calculate the interest on his furniture, dress, or even the food he eats, and seek to use less because thereby money would be saved.

I see around me the men who have given so freely of their time and money to bring this Library, and all that pertains to it, to its present most excellent condition. All honor to them; and I desire here and now, in behalf of the people of our city who are not here to-night, and the thousands more who are to come after us, to thank you all for what you have done, for the great blessing you have conferred upon the present and coming generations in this noble Library. Let the city receive and appreciate it; and may it be the aim of this and all succeeding city governments, to care for and watch over it, yearly voting a sufficient amount to make it what our people demand, and are so able to appreciate and enjoy.

The next speaker was introduced by Mayor Speare in the following words : —

The School Committee are deeply interested in, and intimately connected with, all the educational interests of our city ; and I doubt not you will be pleased to hear from their talented and efficient chairman, Rev. Dr. Peirce of Newton.

ADDRESS OF REV. BRADFORD K. PEIRCE, D.D.

I congratulate you, Mr. Mayor, in being the chief magistrate of our city at this interesting period, and especially, that, on the eve of one of the most significant and important of our centennial events (the 17th of March), you become the organ through which our city receives, by the noble generosity of some of her citizens, this beautiful, substantial, and perpetual gift. This well appointed Library does not indeed fall under the jurisdiction of the School Committee ; but I am ready to acknowledge that it is one of the most important and effective educational institutions of the city. Every thoughtful observer is aware that the school is only one of several almost equally powerful agencies at work in accomplishing the education of the children in such a community as ours. It is impossible to overestimate the influence and efficiency of a cultivated family in the early development and after-training of children, both intellectual and moral. It is a matter of ready discovery in the same schools

under the same teachers, with an equal proficiency, in the ordinary drill of these institutions, by the amount of general information, and familiarity with public events, to find the youths who are daily enjoying the inestimable opportunities of intelligent conversation and wholesome reading at home.

The natural scenery, and the æsthetic taste of the community, as displayed in both public and private forms, afford a constant and universal education for the young, of one of the richest sides of their intellectual being. We all know what a happy change has been effected, in our times, in the training of little children. By object-teaching, the senses are solicited, and, in the most delightful manner, the mental faculties of the little pupils are awakened; and learning is made a delight rather than a burden. Our city, with its varied and charming scenery, with its fine embowered streets, its beautiful lawns and tasteful gardens, is one immense kindergarten, from which our young people are receiving the profoundest and most wholesome impressions. Broad sides of their nature, usually neglected, are thus constantly addressed and developed.

There is another powerful agency at work in the mental training of our children, to which I may be permitted to allude; and that is to our cultivated New England pulpit. Beyond its legitimate office, as the interpreter of God's word to man, and as a divine embassy, bearing a gospel of grace to sinning souls, our pulpit, with its well-trained ministry, has had no

small share in the intellectual training of the people ; in awakening mental life in the community, in developing general intelligence, and in arousing a wholesome ambition for higher education and liberal learning

Then comes the public school, the pride and defence of our republic. It is not for me to disparage this institution as it exists to-day in our city. It compares well with any similar system in the country. Doubtless it is open to criticism, and capable of great improvement. Changes, some of them quite radical, are already going on in our schools. It is an era of revolutions ; but they are transpiring silently, and without violence or open demonstration, which is by far the most hopeful form of their introduction. In ten years, as we look back, we shall be surprised at the real progress which has been made.

Our school-edifices are our chief public buildings. They are structures of which we have no occasion to be ashamed. With one or two exceptions, they are as grateful to the eye, as they are well adapted to the service they are called to render. While some of our sister cities, by the accumulation of a heavy debt, have expended as much money, nearly, upon one high-school building as all our school-edifices have cost, we have as comfortable, as graceful, and as well appointed schoolhouses, as the Commonwealth affords. For two generations, at least, our wooden structures will meet all our necessities.

But after the public school, what? A large portion of our youths finish their school education with the grammar department. They never enter the high school. Many leave before they reach the highest grammar classes. Their minds have simply been developed. They have learned how to read, think, and study. They know but little; but they have secured the rudiments of all knowledge. Without higher schools or college, there is no limit to their progress in literature or science, if they are studious, and the means are at hand. Here comes the open door of the Free Public Library, soliciting their newly awakened intellectual appetites with every variety of tempting food. If habits of reading and study are not formed, they will lose, through lack of exercise, nearly every thing that they have gained; and the schools will be blamed, as they have been, for profiting them in nothing. But, if their tastes are awakened and cultivated, there is no limit, but life, to their possible attainments. The British nobleman, who was so surprised to find the son of his gardener reading La Place's "*Mécanique céleste*," received a significant answer from him to his question, "How did you become able to read and comprehend the work of this great mathematician?" "What more does a person need to begin with than a knowledge of the alphabet?" was the expressive answer.

But the library creates a higher intellectual taste in the community. It becomes a popular university

with all its professional schools. If the community depends upon the incidental reading that comes to hand, its time will be squandered over newspapers, periodicals, and the least wholesome and elevating of the innumerable works of fiction, thrown out in cheap forms from the press. But where a large, well-selected library proffers it free opportunities, and where the intellectual tone of the whole community has been inspired and elevated by its rich treasures, a line of instructive reading, in some branch most in accordance with the taste of the youth, will soon be chosen and pursued, greatly to the profit of the reader. It is the almost universal experience of those in charge of public libraries, that while at first works of fiction, and these not of the most select and improving character, are in large demand, the taste for them gradually wanes, as readers become impressed with the breadth and value, and interest also, of more substantial works. Then works of science and art, biography and history, philosophy and poetry, have their opportunity, and are eagerly sought to administer their better nutriment to the thoroughly awakened appetite for knowledge. It is thus impossible to overestimate the value to the city, in all its coming generations, of such a noble contribution as this Library to its educational instrumentalities.

It is a pleasant thought, that, unless some terrible fire should sweep over this portion of the city, the edifice we are now reconsecrating to a broader field

of its predestined province of public education, will survive the century upon which we are now entering. The surrounding, somewhat unsubstantial edifices will have accomplished their services, and been superseded by others; but this substantial pile of granite, as graceful in its proportions as it is solid in material, will remain, to bear down to our successors a most significant symbol of the generosity and public spirit of our citizens, and of the culture of our city at the opening of its municipal life. It may require, as we hope it will, enlargement through the steady growth of its invaluable contents; but its sturdy walls will admit of another story, and in front new halls — corresponding with the beautiful one in which we are now gathered, and preserving the fine architectural proportions of the graceful building — may be erected; but the original structure itself will stand as the unbroken link between the centennial era eighteen hundred and seventy-six, and its, we hope, even more prosperous successor near the close of nineteen hundred.

As Mr. Peirce resumed his seat, the mayor proceeded as follows : —

No enterprise of any importance, however well endowed financially, will achieve its full measure of success, unless there is some one person who has the time, the disposition, and the ability to largely take the lead in the necessary thought and hours of unknown and unrequited labor; but, fortunately, this undertaking was favored with one whose qualifications

for the place were only excelled by his devotion to the interests of this Library, and who, for the first four years, presided over the deliberations of the Trustees. I refer to George H. Jones, Esq.

On learning that Mr. Jones was not present, being detained at home by severe illness, the Mayor called on J. S. Farlow in his stead.

ADDRESS OF MR. FARLOW.

I cheerfully respond, Mr. Mayor, to your call on me to fill the vacancy in these proceedings, caused by the absence of Mr. Jones. You could not have asked me to fill the place of a worthier man, or one who has done more for this Library; and I assure you, sir, it will afford me great pleasure to do what I can to make his place good here to-night.

I will not, sir, attempt to follow on the line so ably marked out by the gentlemen who have preceded me, but will, with your permission, indulge in some reminiscences of the earlier days of the Library, not so much for the laudation of those whose efforts have been so successful in its establishment, as for the purpose of holding up those efforts as an example for others to follow, in the establishment, in our city, of other institutions of like beneficent character, and to convince them that earnest, persistent effort in such labors will be crowned with like success.

Notwithstanding the gratification the Managers of

the Library cannot but feel at this happy consummation of their labors, there is to them a tinge of sadness in the proceedings here to-night, — a feeling, sir, somewhat akin to that experienced by fond parents when surrendering a beloved daughter to the husband of her choice; for however well assured they may be in their minds and hearts, that, in so doing, they are promoting her greatest good, there is, nevertheless, the sadness and pain of separation. So with these Managers; for, perfectly assured as they are that the greatest good of the Library will be promoted by its surrender here to you to-night, they yet feel the sadness of a separation from the pleasant cares of many years.

I shall never forget, sir, and I do not think any of those who were present will ever forget, the meetings held in Mr. Bacon's parlor in the early days of this enterprise. The doubts and misgivings that all felt more or less, as to their ability to raise a sum sufficiently large to procure what every one present at those meetings admitted to be a *necessity* of the town; viz., *a good library building, library, and reading-room, that should be free to the whole town*; and whether, if such *were* established, could or would their use and benefits be availed of and appreciated by the whole town, composed as it was of so many scattered villages. Fortunately for us, sir, these doubts and fears, and many others that arose from time to time, were dispelled and overcome. A favorable oppor-

tunity offered to obtain this eligible site; and a few brave spirits at once subscribed the means, and secured it.

Matters rested thus for a while, until the offer of a munificent conditional donation was made by our friend here on my right. This gave renewed vitality to the project. The offer was gratefully accepted, and promptly responded to by contributions more than sufficient to fulfil the conditions of our friend's gift, and to an amount large enough to cover the estimated cost of the building and library. Before the building was completely finished, however, it was found that in this, as is very often the case with other undertakings, the *actual* had exceeded the *estimated* cost; and those engaged in it learned, very much to their disappointment, that they were likely to have a completed building without complete means for meeting its cost. This was somewhat embarrassing, to be sure. But in no wise discouraged, and acting upon the idea,

“That those would now give
Who had not given before,
And those who had always given
Would give the more,”

they started a new subscription, and succeeded in obtaining the needed funds. The building proceeded on to completion; the library and reading-room were supplied with the requisite books, periodicals, and newspapers; the corporation was duly organized under

legislative charter; by-laws, rules, and regulations were enacted; and the library and reading-room thrown open *free* to the *whole* town.

Here, then, was an *apparent* fruition of the hopes of those who initiated and carried through the enterprise; not *really* so, however, in the opinion of the Managers. They realized the fact that the work could not fairly be considered as *complete*, until suitable provision had been made for its future maintenance and improvement for a term sufficiently long enough to demonstrate the correctness of their early decision, that a free library was a *necessity* of the town. The longest term of service for which any of the managers were elected was five years. For such a period, at least, the Managers felt it incumbent on them to provide at once the necessary funds. But how and where were these to be obtained? Every gentleman here to-night who has ever had the honor and good fortune to serve as a solicitor of contributions knows full well the labor and difficulties attendant even on a first application. Here was a case, however, where the field of contribution had, it was thought, been pretty well *reaped* on a first application, and, to all appearance, been closely *gleaned* on the second. What hope, therefore, could there be in attempting a third? Discussions in repeated meetings of the Managers afforded no solution of the difficulty. Reports of sub-committees appointed to consider and devise, if possible, some course likely to prove successful, failed to present any. Matters seemed far from en-

couraging. It was in this state of affairs, that at one of the meetings, the President drew from his pocket a letter, which he said had been addressed to him by a secret anonymous friend of the Library. That letter, sir, contained a gift of four thousand dollars to the Library. The turning-point was reached. The reading of that letter electrified all present: liberal subscriptions immediately followed, and in a very few days the whole amount required was obtained. It was some time, sir, before even the Managers knew who this secret friend was; and, to this day, very few in Newton know to whom they are indebted for this timely gift. We owe a great deal, sir, to all those, who, by their labors and contributions, have aided in achieving and perfecting this work; but to three men pre-eminently belong the honor and credit of its successful accomplishment; and these deserve special mention here to-night.

I would name first our esteemed friend, the President of the Board of Managers, Hon. J. Wiley Edmands, whose munificent donation gave such vitality to the work at the outset, and whose continuous labors have so materially aided us throughout.

Next in order is our absent friend, the first President of the Board of Managers, George H. Jones, Esq., whose unremitting zeal, clear, concise judgment, and unswerving fidelity to the cause, did so much to make success sure. I sincerely regret, sir, that he could not be with us to-night to take his proper part in these proceedings.

Third on this roll of honor is the secret anonymous friend of whom I have spoken, John C. Chaffin, Esq. A liberal, open donor before, his secret gift at a critical time *clinched* the nail of success so well *driven* by the others before.

Now, sir, you have the work completed here before you to-night. Here it is: let it speak for itself. The Managers here and now present this Newton Free Library to you in the very flood-tide of its prosperity: they ask of you, sir, and of your associates of the City Council, and of your successors in office, the hearty, generous support such an institution deserves. Make it, sir, what it has been so well described by others here to-night to be,—a powerful adjunct of the educational system of our city. Give it that support, sir; give it, also, at all times, the close personal supervision so necessary to keep it pure. Hold it, as it is now, and has always been, high above all sectarian, political, and extraneous influences whatsoever. Allow no narrow views to militate against the good influences it should at all times exert on the community. Give it these, and depend upon it, sir, its success in the future will be as well assured as is its present, so manifest here to-night.

NOTE. — Mr. Jones has very kindly, at the request of the Mayor, furnished a copy of the remarks intended to have been made by him, had he been able to be present at the meeting; and we insert them here, very properly, as a part of the history of the Library.

ADDRESS OF MR. JONES.

MR. MAYOR, — I thank you for the kind words you have spoken relative to my connection with the establishment of this Library. You are not mistaken as to my devotion to its interests, however much you may have overrated the value of my labor. The discharge of no public trust has ever given me so much pleasure as has resulted from the positions I have occupied by the favor of those gentlemen who were the pioneers in the establishment, and the constant friends of the perfection of this eminently successful institution.

No official position was ever conferred by a constituency whose support was more confiding than that which gave to the Building Committee full powers as to the erection of the building and the preliminary steps in the organization.

The citizens of Newton have ever recognized that public benefits require public benevolence, and that the giving must precede the enjoyment of the benefit. This was eminently true in the case of our Library. Once and again large sums were called for, and in both instances more was given than asked ; and while, in most cases of the kind, many subscriptions fail of collection, we only lost on collections one hundred and ten dollars on about sixty-five thousand. This amount was given by about three hundred persons, in sums from five dollars to sixteen thousand ; and who shall

say that many of the small subscriptions were not as costly as the larger ones to the donors ?

I claim it, sir, as one of the crowning glories of the establishment of this Library, that it was thus built and furnished, and that so many can feel, in future years, that, by their assistance, this Free Public Library was established. And now, sir, it has become the Free City Library of Newton, by free and unconditional gift.

I rejoice at this consummation, and shall ever rejoice in its increasing usefulness and enlargement. This will come from the requirement of an intelligent community, which ever seeks the improvement of existing benefits, and also from an intelligent city government, deriving, in large measure, that wisdom which gives value to its action from the stored knowledge and culture in these alcoves.

You have alluded to all who have been associated as managers during the time since the permanent organization. Permit me to say that Newton never fails to find men suitable for her work. In this case, it has been eminently true that men have been found who were always in harmony ; and I trust the institution has felt the value of this fact, and I believe it to be true, also, that each has striven to advance its interests.

It is, sir, a source of satisfaction to the many friends of this Library, that it has received, in the past, your pecuniary and moral support ; and to-day we are gratified to recognize by your words, that, in your official

capacity, you will extend to it that recognition which accords with its increasing necessities, as the rapid growth in population and influence of the city shall seem to demand.

Most truly has it been said by the gentleman, who, as the representative of the Board of Managers, and upon whom has fallen, most fitly, the duty of presenting to you the keys of this Library, and whose name, but for his choice, would have been given it, that, —

“Early in the history of the Library, the enterprise lost the character of an experiment. Its ready appreciation by the community gave evidence that it had not been started too soon. It found friends to come to its support, when money was needed to continue it; and its steady growth from year to year has confirmed the most sanguine hopes and expectations of those who joined in establishing it.”

In future years, when our beautiful and cherished city shall have attained the size and population, which, if its past and present intelligent and Christian character shall be maintained, as it ever has been by the prompt recognition of all educational and moral exigencies as they arise, then will this institution be found foremost amongst those recognized agencies of the past which have made this city to Boston, what is often true of suburban towns and cities, the home of a population whose influence extends far beyond its boundaries, and whose citizens will be recognized then as now, worthy of position and influence, upon which nations depend for strength and greatness.

But, sir, I will only detain you to say, that, when I look over any large assemblage of our citizens, I am impressed by the large number of our young men, whose industry, education, and character is a guaranty of future useful activity; and I cannot but express the hope that these will be early availed of in the future distribution of official positions of the government of this institution, as well as other offices, so that both the city and the young men will grow together in mutual interests and dependence, and thus the name of Newton continue to be the synonyme of virtue, intelligence, and Christianity in the future, as it has been in the past.

After the delivery of the addresses, the benediction was pronounced by Rev. Mr. Freeland; and thus the proceedings of the occasion were brought to a close.

FURTHER ACTION OF THE CITY COUNCIL.

THE transfer of the Library to the city having been consummated, the following ordinance was introduced, and passed through its various stages in both branches of the City Council :—

AN ORDINANCE RELATING TO THE NEWTON FREE LIBRARY.

Whereas the Trustees of the Newton Free Public Library have conveyed to the city of Newton its franchise, library, and property, real and personal, for the establishment of a public library therein, to be forever maintained by said city, as appears by Act of General Court, approved Feb. 28, 1876 : therefore,

Be it ordained by the City Council of the city of Newton, that the following By-Laws be adopted for the government of said Library.

ARTICLE I.

SECTION 1. — The affairs of the Newton Free Library shall be conducted by a Board of seven Trustees, who shall be elected by ballot by the City Council, as soon after their organization as may be convenient, on concurrent vote, as hereinafter provided.

SECT. 2. — There shall be chosen one member of the Board of Aldermen, and one member of the Common Council, to serve for their elected term of office. There shall also be elected five Trustees at large.

SECT. 3. The members at large shall be chosen, — one for one year, one for two years, one for three years, one for four years, and one for five years. At each election thereafter, one member shall be chosen for five years ; all of whom shall hold their offices until their successors are elected.

SECT. 4. — In case a vacancy occurs in the Board of Trustees, from any other cause than the expiration of term of office, such vacancy may be filled by the City Council, as provided in Section Third.

ARTICLE II.

SECTION 1. — The Board of Trustees shall have charge of all the affairs of the Newton Free Library and its branches, and shall conduct the same in the manner best calculated to subserve the purposes for which it was established.

SECT. 2. — They shall annually choose by ballot, one of their number to be President, and also a suitable person, from their own body or at large, to be Secretary for the term of one year, or until others shall be elected in their stead. Vacancies in either of the foregoing offices may be filled for the remainder of the year, at any meeting thereof.

SECT. 3. — The Board of Trustees may appoint a Superintendent, Librarian, and make such other appointments as may be necessary for the proper care of the Library, the building and the grounds, and fix the compensation to be paid therefor. They shall annually make a detailed report of the affairs of the Library to the City Government, and recommend such measures for adoption as they may deem expedient.

SECT. 4. — The President shall preside at all meetings of the Board of Trustees. He may call special meetings of the Board whenever he may deem it necessary.

SECT. 5. — The Secretary shall keep a true record of the doings at the meetings of the Trustees, subject at all times to the inspection of the members thereof.

SECT. 6. — The Superintendent shall have charge of the Library, under the direction and control of the Board of Trustees. He shall make a full and detailed report annually, and whenever called for by the Board, of the condition and wants of the Library.

SECT. 7. — All drafts or orders, and all bills to be paid from the City Treasury, shall be approved by the President of the Board of Trustees, and the Superintendent of the Library.

SECT. 8. — These By-Laws may be altered or amended, by a two-thirds concurrent vote, at any regular meeting of the City Council, due notice having been given thereof at the preceding meeting.

Upon the passage of this ordinance, the City Council proceeded to the election of a Board of Trustees in accordance with the provisions therein set forth; and the following-named gentlemen, previously nominated by a joint special committee, were duly elected: —

From the Board of Aldermen.

WILLIAM W. KEITH, Esq.

From the Common Council.

WILLIAM I. GOODRICH.

At Large.

HON. J. WILEY EDMANDS (*for five years*).

JOHN S. FARLOW, Esq. (*for four years*).

REV. BRADFORD K. PIERCE, D.D. (*for three years*).

HON. JULIUS L. CLARKE (*for two years*).

HON. JAMES F. C. HYDE (*for one year*).

At their first meeting, the Board of Trustees duly organized as follows: —

President.

J. WILEY EDMANDS.

Secretary.

FREDERICK JACKSON.

Committee on Library.

The PRESIDENT, *ex officio*, and MESSRS. FARLOW, PIERCE, and
CLARKE.

Committee on Building.

The PRESIDENT, *ex officio*, and MESSRS. HYDE, KEITH, and
GOODRICH.

The Board also elected FREDERICK JACKSON, *Superintendent*; HANNAH JAMES, *Librarian*; and CAROLINE B. JACKSON, *Assistant Librarian*.



REPORT

— OF —

WATER COMMISSIONERS,

— TO —

CITY COUNCIL OF NEWTON, MASS.

MAY 1875.



BOSTON:

GEORGE L. KEYES, PRINTER, 4 WILLIAMS COURT.
1875.

R E P O R T

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REPORT.

TO THE CITY COUNCIL OF NEWTON:

The Water Commissioners appointed under authority of the following Order have given careful attention to the duty with which by the terms of that Order they were charged, and have now the honor to submit their report.

COPY OF ORDER.

Ordered, That his Honor, the Mayor, nominate for confirmation by the City Council three suitable persons, citizens of Newton, who shall be called Water Commissioners. They shall be charged with the duty of examining the various sources from which Newton may be supplied with water for fire and domestic purposes, and of reporting to the City Council, with as little delay as possible, the best method of obtaining such supply and the cost of the same. They shall be authorized to employ such professional services as may be necessary; and they shall receive such compensation for their expenses and for their services as the City Council may determine. Adopted in Board of Mayor and Aldermen, Dec. 7, 1874. In Common Council, Dec. 9, 1874.

The duty imposed upon us as Commissioners appears to have been three-fold —

1st. To examine the sources from which Newton can be supplied with water for fire and domestic purposes.

2d. To report the best method of obtaining such supply.

3d. To report the cost of the same.

SOURCE OF SUPPLY.

Three sources of supply present themselves for consideration:—1. The waters of the various ponds in the city with the streams running into them, brought together by a system which should combine the whole for use. 2. A supply from the works of some other municipality, either Boston, Brookline or Waltham. 3. An independent supply from Charles River.

There is not a supply of water to be derived from the first source sufficient for the prospective wants of the city, and it would be unwise to build a system of works founded upon so limited a supply. In this connection, however, it may be observed that we view with apprehension any attempt to obtain the right to use the waters of Newton by persons outside of its limits for the purposes of private gain and profit; and while we do not consider them sufficient as a water supply for our city, they are of great benefit to the city, and we deprecate encroachment upon them. Hammond's pond in particular, from its elevation, may be made use of at some future time for the purpose of flushing sewers or other purposes connected with the water works. An attempt made in 1874 by a private corporation outside of our limits to obtain the right to take the waters of this pond resulted in the passage of Chapter 125 of the Acts of that year, giving the city the prior right to take these waters. This Act has been accepted by the City Council, and the right should be maintained.

With reference to obtaining water from the works of another city or town, in coming as we have to the very clear conclusion that it is not advisable, we have not,

we trust, overlooked the arguments in its favor. It is true that Boston now has one conduit, and expects in about three years from the present time to have another, running the entire length of our city, conveying water to its inhabitants. It is true that both Waltham and Brookline have obtained a supply of water from galleries constructed on the banks of Charles River, unsurpassed in purity and abundant for our present supply at least in addition to their own. From the existing works at Waltham a supply could be obtained only for that section of the city which is situated on the level of the Boston and Albany Railroad, and in order to utilize for the whole city a supply from either Waltham or Brookline it would be necessary for Newton to establish an independent reservoir and pumping station, to lay the same system of piping that would be required were an independent source of supply used, and finally to pay regularly and continually for the water used. Similar conditions would exist in the case of taking water from the Boston conduits, with the additional disadvantage of being obliged to wait three or four years for the completion of the new conduit. It may be doubted whether in either case, even if such an arrangement were in other respects a practicable one, the actual expense of the water delivered to consumers would be less than by a wholly independent system of works. We already have full authority to take our water by independent works from Charles River; it cannot be supposed that if we abandon this power and seek for authority to participate in the water supply of other places, we shall be left upon as independent and favorable a footing. In regard to contracts for supply with other municipal authorities, we have only to refer to the length of time spent by the

city council of Boston, and its nearly irreconcilable disagreement upon the subject of its own water supply for the last two years, to ask whether there would be any prospect of an harmonious agreement by Boston with Newton that the latter should take water belonging primarily to the former? If Boston had abandoned the taking of water from Sudbury River and had sought to take its supply from Charles River, as at one time there was some prospect of her doing, then Newton and other towns on its banks, having by statute as well as by situation the prior right to its waters, the case would have been reversed, and Boston would have been obliged to regard the claims of Newton.

Whether, therefore, we regard cost of water delivered, difficulty of a practicable union, delay which must ensue, or the other strong conditions for taking a supply within our own borders to be spoken of hereafter, we do not recommend an attempt to obtain a supply from the works of any other city or town.

By the Statute of 1872, chapter 344, the City of Newton has authority to take water from Charles River at any point upon the same, within its territory, for fire, domestic and other purposes, not exceeding one and one-half million gallons daily.

Charles River is the natural source of supply for Newton ; the supply is abundant, the proximity immediate, the quality of the water such that it received the recommendation of the Medical Commission appointed by the City of Boston in 1874, in preference to the source taken by that city, and to all others except the Shawshine River. We conclude that the best source for a supply for the City of Newton is from Charles River, pursuant to the Act of 1872, by constructing a

filtering gallery and works above the village of Upper Falls.

As bearing directly upon the question of the purity of Charles River, the following figures are taken from the Report of the Medical Commission, City of Boston, 1874:

	PARTS IN 100,000.					
	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Inorganic.	Organic and Volatile.	Total Residue.
Average of 19 best waters in Europe, 0.20 to 1.39.....	.88	..	..	..	..	..
Average of 10 good town waters in England, 0.000 to 0.010.....	..	0.001	0.005	..	..	..
Shawshine River (average).....	.53	0.002	0.013	4.8	2.4	7.2
Sudbury River.....	.80	0.001 6-10	0.029	3.6	3.8	7.4
Charles River, at Upper Falls, not filtered.....	.70	0.002 6-10	0.018 1-2	3.0	3.4	6.4

“when a water contains a considerable quantity of it (albuminoid ammonia), without at the same time containing an excess of free ammonia and chlorine, it is presumptive evidence that vegetable organic matter only is present.”— *Page 28 of the Report.*

By this test the water of the Charles at Upper Falls will be seen to be satisfactory even without filtration, having a greater quantity of alb. ammonia than the average ten good English waters, with no excess of free ammonia, and at the same time less of chlorine than the average of nineteen best European waters, and less than Sudbury River. But, judging by the experience of the towns of Brookline and Waltham, we may reasonably expect to find that a considerable pro-

portion of our wants will be supplied from springs issuing from the land side of the filtering gallery.

THE METHOD OF SUPPLY.

In deciding as to the best method of obtaining and distributing the supply obtained from Charles River, we have examined not only theories but facts. Most of the problems which enter into the question of water supply have been solved by long experience, and to that experience we have appealed. By the courtesy of the authorities in charge of water works in thirty-three towns and cities, we have replies to a series of printed questions concerning the cost of construction and maintenance, and other statistics relating to the various systems employed for supply and distribution, embodying for our benefit a mass of experience more valuable as a basis of opinion than any theory.

We have conferred personally with many gentlemen having business interests connected with hydraulic works, and with engineers and members of boards in charge of aqueducts, and have read reports of commissioners charged with such constructions. Verbally and by correspondence we have examined into cases of reported defect in machinery and materials employed, and we have visited such works as would, we thought, afford us any instruction. Finally, we have called to our assistance Moses Lane, Esquire, an hydraulic engineer of high repute, and a gentleman of unquestioned integrity, by whose valuable advice, both in verbal and written reports, we are enabled to arrive at the conclusions we now present with a degree of confidence we should not otherwise possess. Such of this information

as was susceptible of collation we have caused to be transcribed into our book of records, that it may be useful to those whom you may appoint to build your works.

As the result of this investigation, we are of opinion that the best method of obtaining a water supply for our city, is to establish at some point on Charles River, above Pettee's works, a pumping station and well, prepared, if need be, to draw water, filtered or directly, from the stream — that the water thus provided be pumped by steam up to a reservoir capable of containing at least 10,000,000 gallons, from whence it may be distributed to the various groups of population. We advise that the pipes be so arranged, by connections and by gates, as that for any temporary advantage, (as, for instance, to afford a supply before the reservoir is completed, or in case of accident, or to repair or examine the reservoir,) a supply of water may be delivered by pumping directly into the pipes for distribution.

To determine the proper location for a reservoir, we have examined and caused to be surveyed six hills within our borders, on any one of which a reservoir could be constructed from which nearly the entire city could draw its supply. Some time in the future it may be considered wise to establish two distinct reservoirs — one to supply the elevated portions of the city, and the other to supply the now thickly settled sections having less elevation. We consider Newton fortunate in its abundance of desirable reservoir sites.

The recent active agitation in various places of projects for what are known as "Holly Works," has led us to give particular attention to the merits of that system. We have advised that provision be made for pumping directly to the pipes in cases of emergency;

but we are clearly of the opinion that for a regular supply the reservoir system is to be preferred. The direct, or Holly plan, economizes in original construction by omitting a reservoir, but it increases the cost of the engine, the size and cost of a filtering gallery—if one is used—it is more liable to serious disaster, and where coal is costly, as it is with us, the expense of maintenance is far greater. This system is open to peculiar objections in supplying a city of such varied elevations as exist in Newton.

THE COST.

As to the cost of construction, it must be premised that every thing depends, of course, upon the character and capacity of the works to be constructed, and that whatever may be the first cost, it is to be assumed that so long as the city thrives the cost must be continually augmented—that increase of population will require increase in every item of the cost.

It would be absurd with a population of less than 20,000 to incur the expense of making full provision for the wants of 200,000, and yet it is a false economy that forbids us to consider the nearer future of our wants.

For the purpose of our estimate we assume 2,000,000 gallons as the extreme of the daily supply, about fifty-one miles as the quantity of piping required, and have calculated for much larger pipe than, until within the past few years, has been considered ample for such needs as ours. The length of pipe for our estimate has been determined upon, after examination, street by street, as one that will convey the water to almost every place

where it is probable that the service will be wanted. The material for which we reckon cost is cast iron, most of it the heaviest used by Boston, to be coated to protect it from the rust. The following is a statement of the quantities and sizes of the pipes proposed.

	2,800	feet of	24	inch	pipe.
18,935	"	20	"		
22,110	"	16	"		
21,520	"	12	"		
58,580	"	8	"		
114,100	"	6	"		
31,300	"	4	"		
<hr/>					
Total, 269,345=51.01 miles.					

Upon this basis we estimate that the total cost will be \$850,000, a sum which we are entirely satisfied need not be exceeded if contracts can be made and the work done under the present favorable condition of the markets for money, labor and material.

By using pipes of wrought iron and cement such as are used in Waltham, Salem and elsewhere, a reduction of the original outlay may be reckoned equal to \$75,000, and if it were expedient to limit a provision to the more populous neighborhoods and to our immediate wants the first cost might yet further be reduced. If it is desired to reduce the expense of the works we earnestly recommend a less number of miles of pipe, rather than any diminution in the sizes of the pipes, or in the quality or character of the works in any respect. Provided such decisive action is taken as will permit the making of contracts and the commencement of work during the present season, we have every reason to believe that for the sum which we have estimated as the cost of water works the city may secure a system which shall embrace the following features: 1st. A pumping

station complete, which shall contain a pumping engine with a capacity of delivering 5,000,000 gallons in each twenty-four hours, and sufficient room to permit the erection of duplicate machinery whenever it shall become necessary. 2d. A reservoir with a capacity of 10,000,000 gallons. 3d. About fifty-one miles of piping of ample size and strength. This year we have cheap iron cheap labor, cheap money, and the estimates which we have given you are made on the assumption that the work will be contracted for during the present season.

It will be remembered that the report of a former Water Committee, which was submitted to the town in 1872, estimated that works of a satisfactory character could be constructed at a cost of not exceeding \$600,000, and it may pertinently be asked why in this report the estimated cost is so largely increased. We reply that the former estimate was made for about forty-two miles of pipe, one-third of which was four-inch, and one-third less than that in diameter; a pumping engine with a capacity of 2,000,000 gallons, and a reservoir with a capacity of about 4,000,000 gallons, the whole combined to furnish the service for a population which was, at the time of that report, less than 13,000.

The present report varies from the above in providing for a population which has increased since the former report was made nearly forty per cent; in providing nine miles more pipe, none of which shall be less than four inches in diameter—less than one-eighth, even so small as that—and none less than six inches in diameter in streets where hydrants would be placed; in providing for a force main at least twenty inches in diameter (instead of sixteen inches), and generally for larger and heavier pipe than was previously contem-

plated; and in providing pumping works and a reservoir commensurate in capacity with the increased length and increased sizes of pipes which the growth of the city has rendered necessary.

Before closing the report we desire to acknowledge the valuable assistance rendered to us by Mr. Frederic Schoff, City Engineer. All the surveys which we have considered necessary have been made under his personal supervision and direction; besides which we have had occasion to call largely upon him for varied information about the topography of the city. His responses to our requests have been uniformly satisfactory; and his assistance has saved for you both time and money in the course of our investigations.

Obeying your suggestion to avoid delay we have thus briefly presented the results of our examination. It is only since the first of April that the weather and the condition of the ground has been such as to permit of field work, but from the date of our appointment until that day we were earnestly engaged in such inquiries as were independent of the severity of the season. To decide upon exact locations for pumping station, reservoir and mains must be the province of those who may be designated for the construction of the works; and in the office of the City Engineer and in our own papers will be found many data for their guidance. Should other details be required by your Boards, we shall be pleased to attend personally to give such information.

ROYAL M. PULSIFER,
FRANCIS J. PARKER,
ROBERT R. BISHOP.

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